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Universitas Lampung, Bandar Lampung, Indonesia
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Proceedings of the 2nd International Conference on Progressive Education

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Preface

We are delighted to introduce the Proceedings of the Second International Conference on Progressive Education (ICOPE) 2020 hosted by Faculty of Teacher Training and Education, Universitas Lampung, Indonesia in the heart of the city of Bandar Lampung on 17 October 2020. Due to COVID-19 pandemic, we took a model of totally online organized event via Zoom. The theme of the 2nd ICOPE 2020 was "Exploring the New Era of Education", inviting academics, researchers, teachers, practitioners, and students around the world to participate and exchange ideas, experiences, and research findings in the field of education to make a better, more efficient, and impactful teaching and learning.

This conference was attended by 190 participants and 160 presenters. Four keynote papers were delivered on the conference, the first two papers were delivered by Prof Emeritus Stephen D. Krashen from University of Southern California, USA and Prof Dr Bujang Rahman, M.Si. from Universitas Lampung, Indonesia. The second two papers were presented by Prof Dr Habil Andrea Bencsik from University of Pannonia, Hungary and Dr. Hisham bin Dzakiria from Universiti Utara Malaysia, Malaysia. In addition, a total of 160 papers were also presented by registered presenters in the parallel sessions of the conference.

The conference represents efforts of many individuals. Coordination with the steering chairs, was essential for the success of the conference. We sincerely appreciate their constant support and guidance. We would also like to express our gratitude to the members of the organizing committee for putting much effort into ensuring the success of day-to-day operation of the conference and the reviewers for their hard work in reviewing submissions. We also thank the four invited keynote speakers for sharing their insights with us. Finally, the conference would not be possible without the excellent papers contributed by authors. We thank all authors for their contributions and participation in the 2nd ICOPE 2020.

We strongly believe that the 2nd ICOPE 2020 has provided a good forum for academics, researchers, teachers, practitioners, and students to address all aspects of education-related issues in the current educational situation. We feel honored to serve the best recent scientific knowledge and development in the field of education and hope that these proceedings will furnish scholars from all over the world with an excellent reference book. We also expect that the future ICOPE conference will be more successful and stimulating. Finally, it was with great pleasure that we had the opportunity to host such a conference.

Gede Eka Putrawan
General Chair

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How the Patterns of Students' Scientific Problem-Solving Skills in SMPN Kota Jayapura

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Abstract. The purpose of this research was to examine and describe the profile on how the patterns of students' scientific problem-solving skills in SMP N Kota Jayapura, Papua, Indonesia. Descriptive quantitative method was chosen to be the research approach. The population of this research were students in seventh class at SMP N Kota Jayapura. Samples taken in this study were 79 students and chosen from random sampling technique. Data collecting was done through test and interview in second term of VIII class. The results of this study showed that 25.32% of students were able to define the problem, 22.78% of students were able to explore the problem, 20.25% of students were able to plan the solution, 20.25% of students were able to check the solution, and 0% of students were able to evaluate. The mean results of test technique using test instrument showed that the students' scientific problem-solving skills was 54.73. This finding was interpreted and categorized through descriptive quantitative analysis. It is obtained that students in SMP N Kota Jayapura has low scientific problem-solving skills.

Keywords: Scientific problem-solving skills pattern, solutions, students.

1 Introduction

Society has developed to enhance their knowledge in the technology using and engaging. It is due to the occurrence movement as a result of the rapid development of information and communication technology in human civilization. According to Schmidt & Cohen, currently human live in the digital age of 4.0 industry [1]. Generation Z, the reference of nowadays generation between 16-27-year-old, were born in an era where half of the world's population is connected to the internet and digital technology so that they are able to survive in both conventional and digital field during their lifetime.

The digital era or digital age is part of the challenges to face by the generation Z in the 21st century. The 21st century has an enormous impact on the science, technology, and other major sectors' development. As stated by Binkley et al., Nur'asiah et al., and Siahaan et al., there is a very rapid development of science and technology and it requires humans to have adequate skills in order to define themselves in society [2-4]. This is in line with the opinion of [5], students in this century are required to have 21st century skills, which are used to compete in the face of globalization and the rapid development of information flows.

According to Barak and Binkley et al., there are several skills to master to survive in 21st century, namely the way of thinking, the way of working, tools for working, and the way of living in the world [6,7]. According to Hesse et al., Griffin et al., Ngang et al., Rahmadani et al., the ways of thinking skills consist of some benefactors related to the scientific process. The indicators are creative thinking, innovative thinking, critical thinking, problem-probing and problem-solving, how to learn thinking, and metacognition thinking [8,9].

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Thinking is an ability or skills to process the information from numerous sources and it can be used to probe and solve problems or tasks due to rational way of analytical method. It is proven that students can explain and determine the solutions to be used to solve existing problems [10]. A good thinker will have high metacognitive abilities so that it can be used to solve existing problems. Based on this statement, we can determine that high-order thinking skills (HOTS) are one of the most crucial or important things to be owned by the students. HOTS must be developed during the process of learning and must be possessed by students to survive of challenges during the lesson [11]. It will relate to how these students will solve problems that occur in life.

Problem-solving skills are one of the essential skills to have along with the challenge appeared in 21st century. Students must have to face the challenges and demands of the 21st century using the thinking skills to pursue their existence in society. Problem-solving skills are related to the activity in which a person uses their observation, experience, understanding of skills and expertise to deal with a situation they don't know yet to be analyzed and evaluated in the learning process and apply what they have to new circumstances [12,13]. In addition, if the problem-solving skills possessed by students, then the students will become more motivated during the lesson. The problem-solving skills will provoke curiosity in students to solve existing problems.

Rotherham & Willingham noted that the success of a student depends on mastery of 21st century skills [14]. Just knowing the knowledge of life that is increasingly complex and can change rapidly Partnership for 21th Century Skills identifies that one of the 21st century skills is problem-solving skills. These skills can help students make correct, careful, systematic, logical decisions and consider various points of view. This lack of ability results in students doing various activities without knowing the purpose and reasons for doing them. The skills possessed by students will have many benefits. One of the benefits is that students are able to achieve high knowledge in order to be ready for the challenges and demands of the 21st century. In addition, according to Dyer et al., that their problem-solving skills will help students to become innovator [15]. It can be preserved because the problem-solving skills are trained in several skills such as observing, asking, reasoning, trying, and forming networks in the social system.

This is in line with what was stated by Trilling & Fadel that problem-solving skills are one type of expert thinking who have a strong desire to solve problems in their life [16]. Problem-solving skills will make someone who has a long life starting with a question and ending in finding the answer to that question. It has been explicitly formulated in The Rules of Ministry of Education and Culture Number 22 of 2006 concerning Content Standards for Junior High School of science subjects which states that it is necessary to develop analytical, inductive, and deductive thinking skills to solve problems related to natural events around them [17]. When teaching science, problem-solving skills and thinking insights for a good future life can be trained to students [18,19]. When referring to the National Research Council USA, the low contribution of science learning to the livelihoods of citizens is due to one of the causes of the use of inaccurate assessments [20].

The results of interviews conducted with 3 science teachers from 3 junior high schools in Jayapura City showed that teachers had not stimulated HOTS in the learning process. The importance of problem-solving skills to meet 21st century skills is urge. Whereas it is necessary to conduct the research to rethinking the solution of determining the problem-solving skills pattern in science. This study focused on the students from 8th grade at SMP in Jayapura City.

2 Method

This research used descriptive quantitative approach. The population of this study were students from eight grade of junior high school in Jayapura city. Test were deliberately delivered to the samples and the results were analyzed to get the mean score of students' scientific problem-solving skills based on six parameters or aspects. The samples were 79 students. The sampling technique used was purposive sampling. The samples consisted of 3 junior high school in Jayapura city, namely: SMPN 2, SMPN 11, and SMP YPPK St. Paulus. Data were obtained through tests and interviews. The problem-solving skills test refers to the theory of Mourtos et al. [12]. The problem-solving skills test materials used were all science material for students in class VII during the second semester. The test was developed in the form of multiple choice with a total of 50 items. Interviews were conducted to clarify and validate the students' test answers.

3 Results and Discussion

The results of this study indicate that there are many problems found in every aspect of problem-solving skills in science, especially in the last aspect, evaluate, which has a percentage of 0%. The results of data analysis are drawn in percentage due to students' problem-solving skills pattern. In this study, students are obtained to have a low percentage for each aspect of scientific problem-solving skills. The results for each aspect of the percentage of scientific problem-solving skills are shown in Table 1.

Table 1. The results on students' science problem-solving skills.

Scientific problem-solving skills aspects [12]	Percentage (%)			
	SMPN 2	SMPN 11	SMP YPPK St. Paulus	Mean
Define the problem related to science	26.67	28.57	21.43	25.32
Explore the problem given	23.33	23.81	21.43	22.78
Plan the solution to the problem	20	19.05	21.43	20.25
Implement the solution plan	20	19.05	21.43	20.25
Check the solution	10	9.52	14.29	11.39
Evaluate the results	0	0	0	0

The first aspect of problem-solving skills is to define the problem. To define the problem, students can carry out an analysis activity from a picture or discourse that is presented. This activity is expected that students can: (1) find several problems related to images and discourse; (2) sketch the analysis process that has been carried out; (3) check what information is contained in the image or discourse; and (4) determine and define the problem.

The following is an example of the results from students that are relevant to the first aspect, namely to define the problem (Figure 1). The student answered that the muscles between the ribs experienced relaxation, so that the ribs were lifted and the air could enter (the process of breathing). The student's answer was incorrect and then we conducted an interview to confirm the answer. The students' answer shows that the student has not been able to define the problem through pictures. After conducting telephone interviews, it turned out that the students did not understand the concepts of contraction, relaxation and breathing through two processes namely inspiration and expiration. In the process of inspiration, the muscles between the ribs contract, so the ribs are lifted and air can enter. Thus, it can be also said as the process of human breathing.

It is in line with the research of DiCarlo stating that teaching alveolar ventilation to students need to be done by using HOTS approach [21].

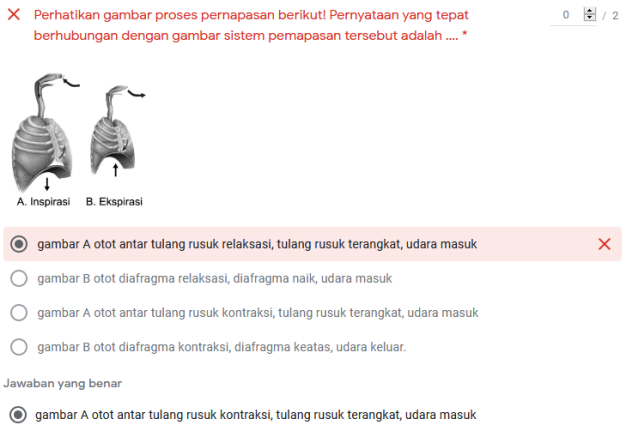

Fig. 1. The example of students' answer in to define the problem aspect.

The second aspect of problem-solving skills is to explore the problem. To explore the problem, students can carry out activities to carry out literacy studies or literature studies related to problems that have been applied and determined. This activity is expected that students can: (1) determine the object of the problem; (2) determine problems related to the defined problem object; (3) create assumptions from the problems that have been determined; and (4) establish answers to predetermined assumptions.

Figure 2 is an example of students' answer in the second aspect, namely explore the problem. Students did not respond, nor did they answer. After the interview by telephone, the students forgot to answer the question. The results of the interview showed that the students did not understand the concept of myopia and hypermetropy eye defects, because the students could not explain the position of the image captured by the retina for myopia and hypermetropy eye defects. This students' answer shows that the student has not been able to export a problem through pictures. It is in line with the research of Rahmadani et al., stating that teaching optical device material to students need to be done by using computer simulations to enhance students' problem-solving skills during the lesson [16].

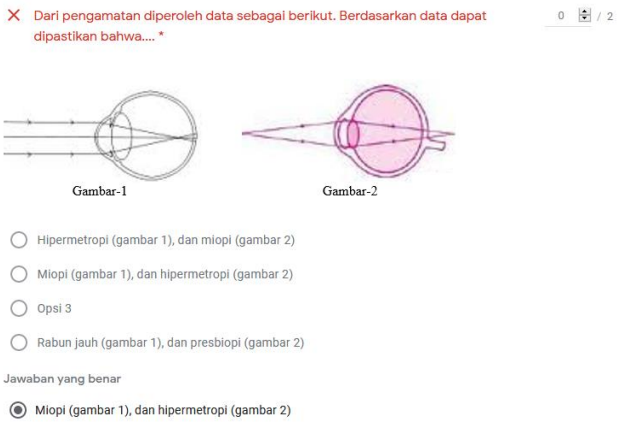

Fig. 2. The example of students' answer in to explore the problem aspect.

The third aspect of problem-solving skills is to plan the solution. To plan the solution is the process of analyzing several expert studies of the theory, including the principles and concepts that have been studied and then selected according to the predetermined assumptions. Students are required to choose the theory, principles, and concepts being studied, at this stage students are required to make a design or procedure that is used to prove the assumptions that have been made in the form of a map or chart.

The following is an example of the results from students that are relevant to the third aspect, namely to plan the solution (Figure 3). The students answered that the surface of the liquid in the vessel was not at the same level if: (1) there was a different type of liquid; (2) one of the pipes is closed; and (3) one of the pipes is a capillary tube. This student's answer is incorrect. Then interview is needed to confirm the answer. After conducting telephone interviews, it was obtained from the answer that the students did not have proper understanding related to the concept of balance. In the connected vessel, balance of the matter is needed when on a flat surface. It is in line with the research of Kurniawati & Ermawati stating that students' conception in learning capillary tube phenomenon rise misconception due to the lack of probing the problems given [22].

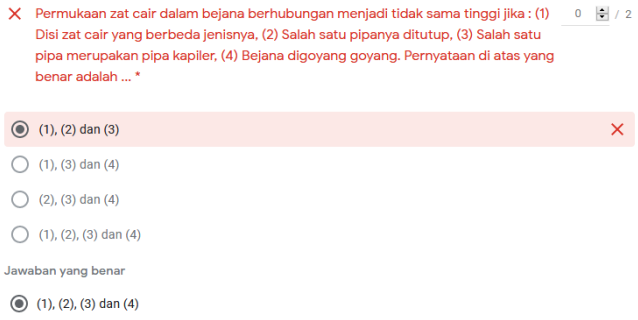

Fig. 3. The example of students' answer in to plan the solution aspect.

The fourth aspect of problem-solving skills is to implement the plan. Implementing the plan is the stage of applying or determining the solution from the study of theories, principles, and concepts that have been selected and embodied in a chart. It is used to prove the problem assumptions that have been made. At this stage students are trained to do a research based on scientific method. From this research students can get data that is used to answer predetermined problems.

Figure 4 is an example of students' results in the fourth aspect, namely to implement the plan. Students give wrong answers. The results of the telephone interview showed that students did not understand the concept of Archimedes, because students could not apply the mathematical equation of Archimedes law. This students' answer shows that the student has not been able to implement a concept to determining the solution of the problem. It is in line with the research of Berek et al., stating that students' concept comprehension in Archimedes law material can be achieved when students were able to plan the solution of the problem given [23].

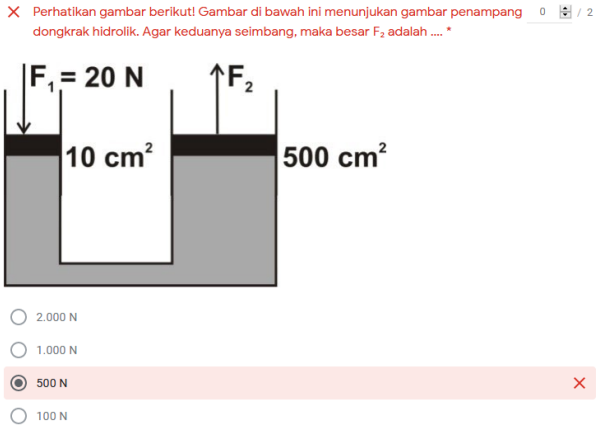

Fig. 4. The example of students' answer in to implement the plan aspect.

The fifth aspect of problem-solving skills is to check the solution. Check the solution is the stage to verify or see whether the design used in order to prove the answer is correct. It is also used to verify the finding in accordance with the theory being studied. At this stage students explain how from the process of problem definition to obtaining data and explain the reasons that are used as the basis of the theoretical study, the principles and concepts used.

Figure 5 is an example of students' results in the fifth aspect, namely to check the solution. Students give wrong answers. The results of the telephone interview showed that the students did not understand the concept of breathing, that humans breathe in oxygen and emit carbon dioxide. The meaning of the word exhaled air is blowing or removing carbon dioxide. Students did not understand the meaning of the word. When humans exhale into the element tube, they emit carbon dioxide. Thus, the lime water in the element tube will become cloudy when it reacts with carbon dioxide. This students' answer shows that the student has not been able to check the solution. It is in line with the research of Cheng & Hoe stating that students were not able to check the solution of inspiration and expiration process due to the mismatch of clarification of the answer [25].

Fig. 5. The example of students' answer in to check the solution aspect.

The sixth aspect of problem-solving skills is to evaluate. To evaluate is the last stage of problem-solving skills aspects. At this stage students use their cognitive skills to re-analyze what has been done and assess the statements that have been put forward, provide descriptions and training that has been done and put together. At this stage students are required to use strong logic to connect statements, descriptions, and questions given by other students. Students are trained to be able to compare what has been obtained with a literature review that has been reviewed and analyzed and whether the solution applied is acceptable or not.

Figure 6 is an example of students' results in the sixth aspect, namely evaluate. Students' answer was incorrect. The students' answer is to blow balloon A. This is not possible because balloon A was inside balloon B. The result of the interview by telephone showed that the student did not understand the concept of breathing in the lungs. Students are not able to evaluate the experimental design of simulated lung breathing. Balloon A will expand when balloon B is pulled down. This student's answer shows that the student has not been able to evaluate. It is in line with the research of Silva & Almeida stating that students were incapable to evaluate the respiration process using the balloon asked in the question [25].

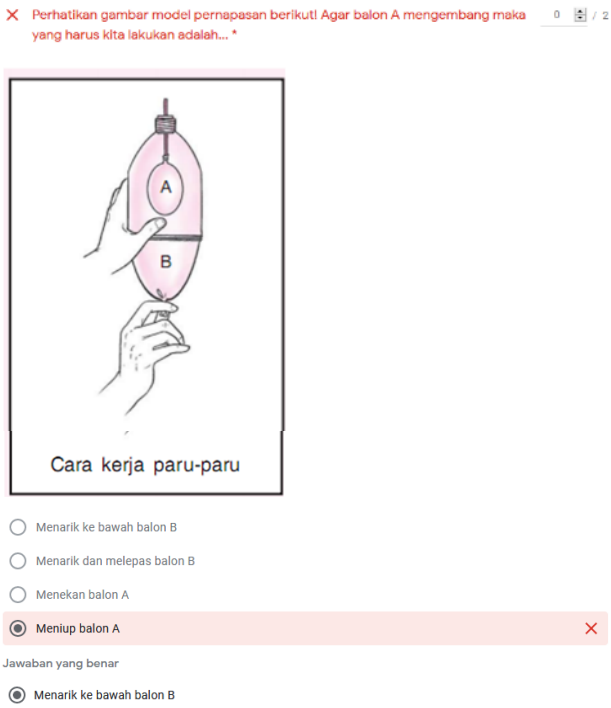

Fig. 6. The example of students' answer in to plan the solution aspect.

Figure 7 shows the average science score for class VIII students in SMP Kota Jayapura, which describes the scientific problem-solving skills. It can be seen in Figure 7 that the results show the mean score of students' answers in the test results in SMPN 11, SMPN 2 and SMP YPPK St. Paulus. The scores are respectively 49.24 (SMPN 11); 49.8 (SMPN, 2); and 64.14 (SMP YPPK St. Paulus). Figure 7 also draws the pattern of level related to students' mean score on scientific problem-solving skills. It can be concluded that SMP YPPK St. Paulus has the highest average score. Whereas the achievement score is still categorized in low category for the criteria of scientific problem-solving skills aspects. It shows that the scientific problem-solving skills possessed by students from class VIII at SMP Kota Jayapura is categorized in the low category. This finding is closely related to the previous study conducted by Kinay and Bagceci revealing the mean score of assessment results on scientific problem-solving. It was stated that the educators and policy makers needed to heed on the solution toward problem-solving skills. Other research conducted by Yildiz and Besoluk found that we needed to focus on the solution regarding low scientific problem-solving skills among teachers and students [26,27].

The findings from this study lead to the rethinking the solution of students' scientific problem-solving skills. If the pattern of scientific problem-solving skills level of students can be mapped, the educational practitioners will be able to stimulate the low category aspects so that students can achieve better conceptual understanding in the learning process. Dewi conducted a research to elevate students' scientific problem-solving skills through local potential and local wisdom [28]. Celik and Serin found that the influence and impact from the use of network-based science teaching can lead to the enhancement of students' scientific

problem solving skills [29]. Other advanced study on specific branch of problem-solving skills had been done by other researcher, Cheng et al., stating that interplays of knowledge, critical scientific reasoning, and problem-solving are needed to optimize to boost the students' problem-solving skills [30]. Meanwhile, there is a researcher developing new learning model to enhance student's problem-solving skills [31]. Visual mapping also can be one of solution to improve students' problem-solving skills [32].

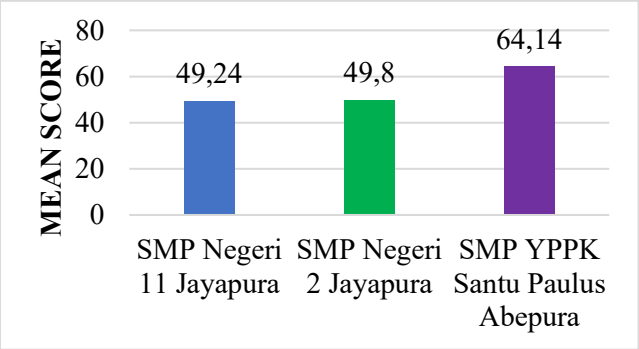

Fig. 7. The mean score of students' scienctific problem-solving skills of each school.

The results of this study indicate that there are many problems found in every aspect of problem-solving skills in science, especially in the last aspect, evaluate, which has a percentage of 0%. Based on the results of research that has been done, the results of data analysis on the percentage of students' problem-solving skills in this study have a low percentage for each aspect. The results for each aspect of the percentage of problem-solving skills are shown in Table 1.

4 Conclusion

The results showed that 25.32% of students were able to define the problem, 22.78% of students were able to explore the problem, 20.25% of students were able to plan the solution, 20.25% of students were able to check the solution, and 0% of students were able to evaluate the solution. The results of the student's science problem-solving skills test had an average or mean score of 54.73. These results indicate that the students in class VIII have low category of science' problem-solving skills. To rethinking the solution toward low students' scientific problem-solving skills, we need to conduct wider and deeper research with different scope and sequence. The science learning process needs renewable method integrated with 21th century skills to elevate students' problem-solving and problem-probing skills.

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The Use of Horizontal Representation in Students' Science Book on Energy Subject Matter and its Impact on Students' Critical Thinking Skills and Visual Literacy

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Abstract. The purpose of this study was to identify the use of horizontal representation in the students' science books in explaining scientific concepts, theories, and phenomena on energy in living system and its impact on students' critical thinking skills and visual literacy. This study was conducted on a hundred junior high schools students in Bandar Lampung city and used quantitatively descriptive method. The data were collected using questionnaires and an assessment sheet. The result showed that learning material mostly used by students was student's science books published by Indonesia's Ministry of Education and Culture in 2017 which in the very high category (97%). The type of horizontal representation that mostly presented was image, which in the very high category (82.8%), while the others type of horizontal representation were in the very low category. The percentage of student activities and evaluation in the student book which in line with critical thinking skill indicators was in the medium category, and which in line with the visual literacy indicators was in the very low category (10%).

Keywords: Horizontal Representation, Critical thinking skill, Visual literacy.

1 Introduction

This digital era presents opportunities as well as challenges in every aspect of life [1]. Massive developments in technology and information occur in various aspects of our life [2]. The most noticeable development happens in visual information technology [1]. Today's students live as global consumers of that visual information, but not many of them understand the information that they received [3],[5]. In dealing with this condition, students need to have good visual literacy to interpret the information they received. Visual literacy is the ability to create and interpret visual representations of data that can help students sort out the information, solve problems, and make decisions based on that information [6].

Besides having good visual literacy, students need higher-order thinking skills such as critical thinking skills to protect themselves from various false information. Critical thinking and visual literacy are the must have skills for students on this 21st century according to the goals of the 2013 curriculum. In the 2013 curriculum, students are required to have several skills including Critical Thinking Skills, Communication Skills, Creativeness, and Collaboration. Not only that, but students are also expected to develop their talents, character, competence, and literacy so that they can face the challenges of this era [7]. It is possible to train critical thinking

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skill and visual literacy through science learning, especially on learning transformation of energy in living system [8],[9]. However, in reality, students are not easily attracted to science as a school subject [10]. It is because some scientific concepts and phenomena in science are too abstract and difficult to understand by students and this is the cause of students' lack of understanding of various concepts in science learning [11]. The low quality of science learning in Indonesia can be seen in the results of PISA and TIMSS. Since the beginning of its participation in 1999 (TIMSS) and 2000 (PISA), Indonesia has never even been in the top 30 [12].

On energy in living system topic, students are require to analyze the concept of energy transformations that occur in daily life, for example, cellular respiration and photosynthesis. Students need to understand how energy transferred through sun light into chemical energy while carbon dioxide and water are transformed into glucose and oxygen, and how energy is stored during photosynthesis. How humans and other living things process their food into energy. This topic involves several complex steps, but the details of these steps are often missing in student's science book [13]. This is one of the reason for student's difficulty on understanding the processes and phenomena that occur in the transformation of energy in living systems. It is even more difficult to understand if the explanations in the student's book are only in the form of written explanations.

Horizontal representation can be a tool to help student understand the concept of energy transformation. Horizontal representation is from the visualizable concrete objects to the underlying concept represented by more abstract such graphs, tables, equations, animation, or verbal descriptions [14]. Visual information such as pictures, tables, graphics, and animation makes brain easier to create the mental images of an action. This is very important for students who are learning a new skill. Seeing a simulation of the skill will help the brain identify the action state and then mentally simulate the actions required to put the skill into practice. The brain then stores mental simulations in memory as memory traces that can reactivated when students recall it [15]. This is why visual information tends to attract more attention than plain text, because it communicates more information, and is easier to remember [16, 4]. This is consistent with the dual coding theory, the information in the form of visual and verbal representations are easier to remember than the textual information [17].

Visual learning plays a very important role in developing critical thinking and visual literacy. Visualization i.e. horizontal representation used to encourage learning levels and support different learning styles and to develop critical thinking in students [18]. The use of horizontal representations to visualize abstract concepts in energy in living system topic makes students understand these concepts better. The use of graphics to learn the transformation of energy will train students to be able to analyze data, make inferences, convincing arguments, and evaluate the arguments from the data [19]. For example, students learn the factors affecting the process of photosynthesis through graphics. When students have to convert information from graphics into the other forms of information, it will make students think visually. Meanwhile, students' critical thinking skills can be develop by concluding the factors based on the data from the graph. Before concluding, students have to analyze the data, it forced students to think and improve their critical thinking skills.

The purpose of this study is to identify the use of horizontal representations presented in the secondary school science books in explaining scientific concepts, theories, and phenomena on energy in life and the impact on students' critical thinking skills and visual literacy.

2 Materials and Method

This study conducted on one hundred 7th grade students from ten junior high school in the city of Bandar Lampung. This study was used a quantitatively descriptive method. The first step of this research was to find out the teaching materials mostly used by students using the questionnaires. Then, the second step was to analyze the science books that mostly used by students using the assessment sheet that was validated by the expert. The assessment sheet was used to find out the type of horizontal representation in the science book and determined its impact on critical thinking skills and visual literacy achievement based on evaluation and student's activities on the book.

Criteria for data analysis results from student questionnaires and science book analyses are present in Table 1. Analysis of science book was based on the use of horizontal representations, aspects of critical thinking skills according to indicators of critical thinking skills by Ennis and visual literacy according to the visual literacy indicators by Avgerinou [8],[20]. This study used three of the eleven visual literacy indicators by Avgerinou, which consist of visual thinking, visual reasoning, and visual associations. Indicators of critical thinking skills in this study consist of providing simple explanations, building basic skills, concluding, provide further explanation, and set strategy and tactics. The data analysis technique of the questionnaire data needs assessment of student was done by calculating the percentage of respondents' answers on each item using the following formula [21], see equation (1):

$$\%J_{in} = \frac{\sum Ji}{N} \times 100\% \quad (1)$$

Where % J_{in} is the percentage of answer choices i, $\sum Ji$ is the number of respondents who answered answer i, and N is the total number of respondents.

The data analysis technique of the science's book assessment was done by calculating the percentage using the following formula[21], see equation (2):

$$\%X_{in} = \frac{\sum S}{S_{maks}} \times 100\% \quad (2)$$

Where $\%X_{in}$ is the percentage of answer choices, $\sum s$ is the total score answered on assessment sheet, and S_{maks} is the maximum score.

The interpretation of percentage criteria for data analysis results from student questionnaires and assessment sheets [22], is presented in Table 1.

Table 1. Interpretation of Percentages in questionnaire and assessment sheets

Percentage (%)	Criteria
80,1 – 100	Very high
60,1 – 80	High
40,1 – 60	Medium
20,1 – 40	Low
0,0 – 20	Very low

3 Result

The result of the data analysis of student questionnaire data of teaching materials used by students are presented on Figure 1.

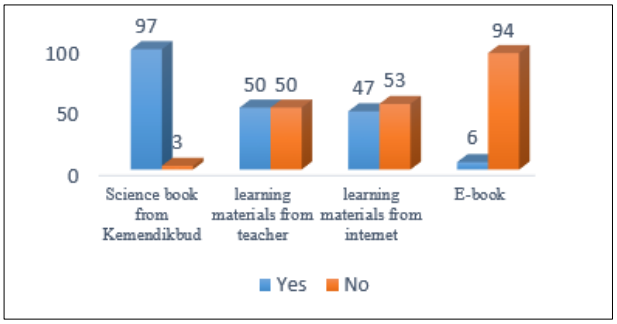

Fig. 1. Learning materials used by students in energy in living system topic

Horizontal representation analysis data of science book on energy subject matter published by the Ministry of Education and Culture in 2017 are presented on Figure 2.

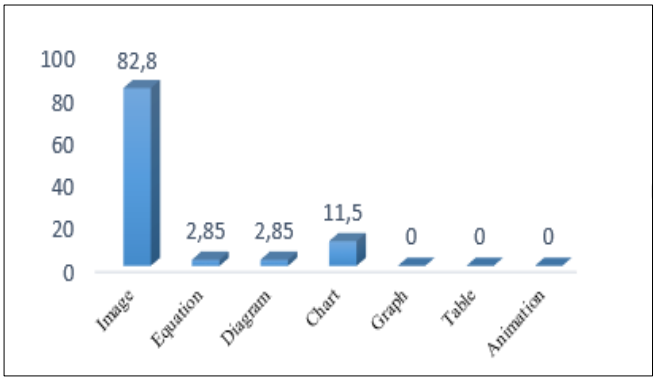

Fig. 2. Horizontal representation in the Ministry of Education and Culture's science book

The percentage of evaluation questions and student activities types presented in science book on energy subject matter presented in Figure 3. The percentage of critical thinking skills and visual literacy Indicators presented in the science book are present in Figure 4 and Figure 5.

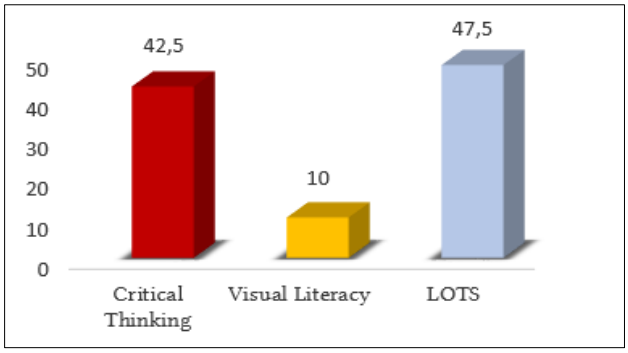

Fig. 3. Percentage of question types presented in the Ministry of Education and Culture's science book

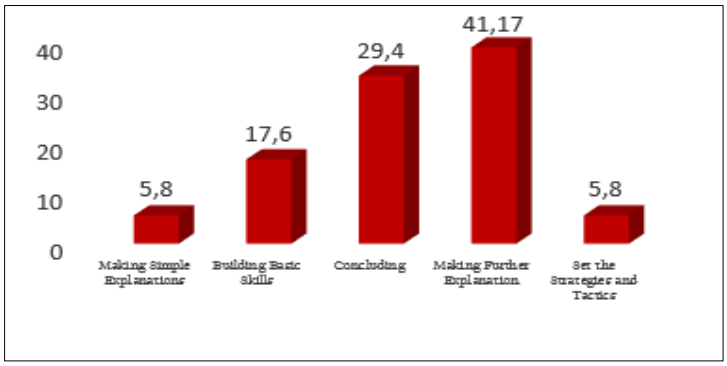

Fig. 4. Indicators of critical thinking skills presented in the Ministry of Education and Culture's science book

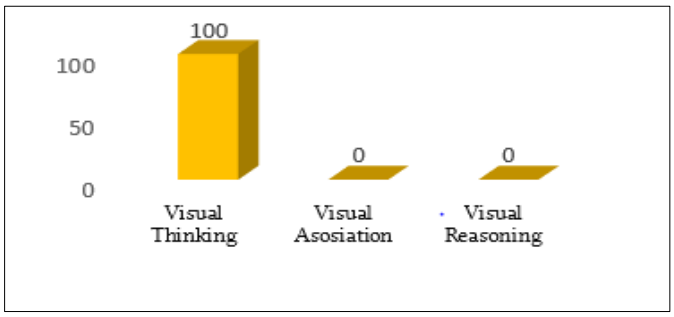

Fig. 5. Visual literacy indicators presented in the Ministry of Education and Culture's science book

4 Discussion

Learning materials are all forms of material used to assist teachers in carrying out teaching and learning activities. It can be in the form of written material or unwritten material [23]. The learning material mostly used by students in leaning energy subject matter is the 2013 curriculum science book published by the Ministry of Education and Culture in 2017. This book is published in digital form (e-book) and in regular printed book form. Even though it is published in e-Book form, it does not provide interactive features and most students use it in printed form. Based on Figure 1, it can be seen that from 100 respondents, the percentage of students who use printed books published by the Ministry of Education and Culture is in the very high category (97%), students who use teaching materials made by teachers (50%), students who use teaching materials from the internet (47%), while students who use e-books (6%).

Based on Figure 2. In the science book used by students, several types of horizontal representations have been presented. Horizontal representations are represented by graphs, equations, or more abstract verbal [11]. The total number of horizontal representations used in this science book is 35, consist of pictures, equations, diagrams, and charts. The dominant type of horizontal representation is images which is in the very high category (82.8%), while the equations (2.85%), diagrams (2.85%), and charts (11.5%) are in the very low category. Horizontal representations in the form of graphs, tables, and animations are not presented in the science book. The concept of energy transformation consists of abstract and complex scientific concepts and makes students difficult to understand [24]. Representation in science learning has an important role to help students to understand scientific concepts and phenomena[19]. Learn complicated scientific concepts using multiple forms of representation such as diagrams, graphs, and equations can bring benefits for students [25].

Critical thinking is a reflective way of thinking that makes sense or based on the logic that focuses on determining what to believe and do [26]. Critical thinking skills can be trained in science learning using the five indicators of critical thinking skill by Ennis, which consist of providing simple explanations, building basic skills, concluding, providing further explanations, and arranging strategies and tactics [8],[9],[27]. Based on Figure 3. It can be inferred that the science book from the Ministry of Education and Culture that students use to learn energy subject matter has presented the five indicators of Ennis's critical thinking skills indicators. The analysis was carried out by looking at the evaluation questions and student activities presented in the science book.

The total number of questions in the science book in energy subject matter is 40 questions, but only 4 questions in line with the visual literacy indicators [20] and 17 questions in line with the critical thinking indicators [27]. Based on Figure 4, it can be inferred that the indicators provide simple explanations (5.8%), set strategies and tactics (5.8%), and building basic skills (17.6%) are in the very low category while the conclusion (29.4%) and giving a further explanation (41.17%) are in the low category. Although the five indicators of critical thinking skills have been presented in the science book from the Ministry of Education and Culture, but the percentage is still lower than the LOTS questions that presented in the book.

Besides critical thinking skills, visual literacy has been recognized as a necessary skill for effective learning and teaching. These skills are important and must be taught and learned by students [28]. Visual literacy can be developed as a set of skills to be able to interpret the content of visual information, examine the social impact of images, and discuss the goals found in

images [1]. This ability can be measured using several indicators; i.e. visual thinking, visual reasoning, and visual associations. Based on Figure 5, it can be inferred that the visual literacy indicator presented in the science book is only visual thinking (100%). Visual association and visual reasoning are not presented in the science books. Whereas visual association activities train students to connect verbal messages and visual representations to enhance the meaning, while visual reasoning trains students to think logically and coherently with visual information [20].

5 Conclusion

Based on the results and discussion, it can be concluded that the learning materials mostly used by students on energy subject matter is science book published by the Ministry of Education and Culture. The horizontal representation in the science book has not been optimally used to improve students' critical thinking skills and visual literacy. The use of horizontal representations can help students easier to understand abstract concepts in energy subject matter and develop students' critical skills and visual literacy. Thus, student science books should present more horizontal representations because it has impacts on the development of students' critical thinking skills and visual literacy.

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The Use of Vertical Representation in Students' Science Book on Matter Particles Topic and Its Impact on Students' HOTS and Visual Literacy

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Abstract. This study aimed to identify the use of vertical representation presented in students' science book in explaining scientific concepts, theories, and phenomena on matter particles and its impact on students' HOTS and visual literacy. The method used in this study is quantitatively descriptive method. The samples of this study were 100 students in ten senior high schools in Bandar Lampung and Central Lampung. The data collection used questionnaire and students' science book assessment sheet. The result showed that the teaching materials most widely used by student was students' science book of 2013 curriculum published by Ministry of Education and Culture which in the very high category (96%). The type of vertical representation that was mostly presented in matter particles topic in the science book was symbolic level which in a very high category (82.22). The percentage of evaluation and student activities on the science book which accordance with HOTS indicators was in the low category (26.08%), while in accordance with visual literacy indicators was in the very low category (15.21%).

Keywords: Vertical representation, HOTS, visual literacy.

1 Introduction

In this 21st century, the vast development of information technology affects various aspects of life in the society [1]. Within the sphere of education, technology provides many forms of digital facilities, which can of course make learning more attractive and interesting by way of visual dynamic and interactive [1],[2]. The students in this era are the generation having been living with technology as an inseparable part of life [3]. They make use of technology for playing games, studying, and finding abundant information on the internet. This technological development drives students to being the active consumers of such multimedia platforms as the internet, television, film, and commercials, which are dominated by visual information [4]. The internet offers convenience galore in acquiring aplenty information and necessary learning material for students.

Both learning material and visual information can spread super quickly and be downloaded almost effortlessly, without the consideration whether or not the information is in accordance with the fact. As a result, students acquire misleading information and it unquestionably flaws their knowledge. For this reason, it is of high urgency to train them in higher order thinking skills (HOTS) so that they will be able to tell right from wrong in terms of the material and information. In HOTS, it is required for them to optimally use their minds so as to be able to

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apply the information and knowledge they have acquired in order to solve the problems in their daily lives [5],[6]. Besides HOTS, students should also have the ability to read, interpret, and comprehend visual information presented in the forms of symbols, graphics, pictures, and videos in daily life, which is regarded as visual literacy [7].

It is possible to train students' HOTS and visual literacy through science learning at school. Science holds a vital role in improving the quality of education, especially in terms of producing excellent students, those who are able to think critically, creatively, logically, and handle social issues on their own initiative [8]. The results of the 2018 PISA and 2015 TIMSS demonstrated that Indonesian students' overall score achievement for science was way below the average [9],[10].

Science comprises abstract concepts, so it is still difficult for students to understand it. Therefore, it possibly turns into a cognitive burden for them. One of the abstract items of material in science lesson is matter particles topic. The concepts of matter particles topic are difficult if they are just imagined by students, and if the way the teacher delivers the lesson is not quite right, there will be students' different perceptions [11]. The phenomena of matter particles topic are difficult to be presented in class so that the representations which can visualize it are of essence. One of the possible types of representations is the vertical one. Via this type, the relationships between the scientific phenomena at the macro, sub micro, and symbolic levels can be described [12].

At the macro level, the representations are obtained from the observations of phenomena that can be seen directly. The macro level covers what is learnt and experienced in daily life [12]. The sub micro level is related to the representations explaining the observed macroscopic [13], while the symbolic level is composed of the qualitative abstractions used to represent each item at the sub micro level [13]. The purpose of this study is to identify the use of vertical representation presented in the secondary school science books in explaining scientific concepts, theories, and phenomena on matter particles topic and the impact on students' HOTS and visual leteracy.

2 Materials and Methods

The method used in this research was quantitatively descriptive method. The samples on this research were one hundred 10^{th} grade students in ten senior high schools in the city of Bandar Lampung and Central Lampung District. The data collected using questionnaire and students' science book assessment sheet for the nine-grade science book 2013 curriculum, published by the Ministry of Education and Culture in 2018. Criteria for data analysis results from student questionnaires and science book analysis are presented in Table 1. Analysis of students' science books is based on the use of vertical representations, aspects of HOTS according to indicators of HOTS by Anderson & Krathwohl and visual literacy according to the visual literacy indicators by Avgerinou [14],[15]. HOTS indicators used were analyzing (C4), evaluating (C5), and creation (C6) [14]. Visual literacy used were visual thinking, visual reasoning, visual discrimination, and visual association [15]. The questionnaire is used to find out the teaching materials used by students. Students' science book assessment sheet was used to know the type of vertical representation on science book and determine its impact on HOTS and visual literacy achievement based on evaluation and students' activities on the book.

The data analysis technique of the questionnaire usage of students learning materials was done by calculating the percentage of respondents' answers to each item using the following formula [16]:

$$\%J_{in} = \frac{\sum Ji}{N} \times 100\% \quad (1)$$

Where %Jin is the percentage of answer choices i, ∑Ji is the number of respondents who chose answer i, and N is the total number of respondents.

The data analysis technique of the science's book assessment sheet was done by calculating the percentage using the following formula [16]:

$$\%X_{in} = \frac{\sum S}{Smaks} \times 100\% \quad (2)$$

Where $\%X_{in}$ is the percentage of answer choices, ∑s is the total score answered on assessment sheet, and S_{maks} is the maximum score.

The percentage criteria for data analysis results from student questionnaires and science book assessment sheets [17], are presented in Table 1.

Table 1. Questionnaire criteria for the use of teaching materials by students and Science book analysis data on matter particels topic

Percentage (%)	Criteria
80,1 – 100	Very high
60,1 – 80	High
40,1 – 60	Medium
20,1 – 40	Low
0,0 – 20	Very low

3 Result

The results of the data analysis questionnaire of the teaching material used by students in material particles topic are presented in Figure 1.

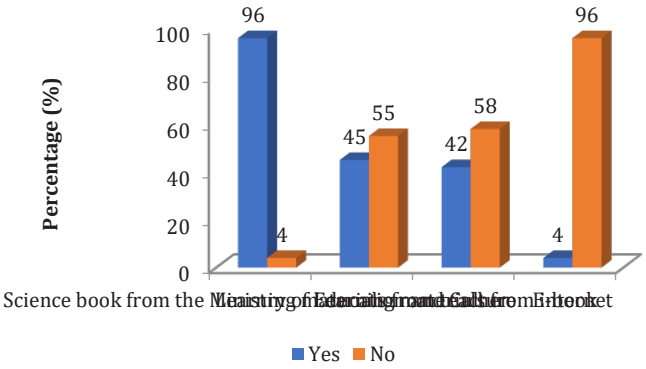

Fig. 1. Teaching materials used by students in matter particles topic

The results of the vertical representation data analysis presented in the science book published by the Ministry of Education and Cultre in 2018 are presented in Figure 2.

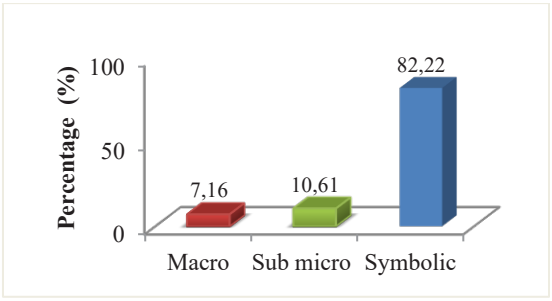

Fig. 2. Vertical representation in the science book published by the Ministry of Education and Cultre

The percentage of evaluation and student activities on the Ministry of Education and Cultre's science book on matter particles topic are presented in Figure 3.

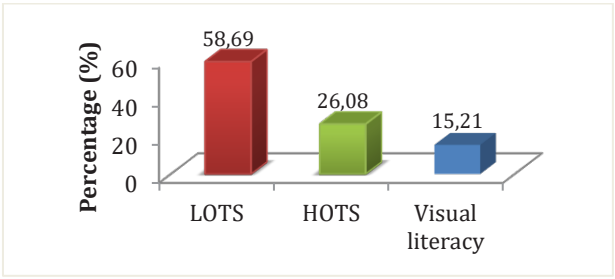

Fig. 3. Percentage of question types presented science book on matter particles topic

Percentage indicators of HOTS in the evaluation and student activities on the science book on matter particles topic are presented in Figure 4.

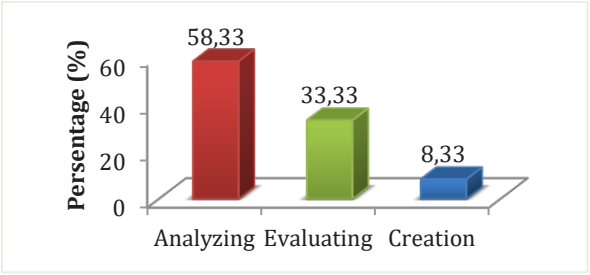

Fig. 4. Percentage indicator of HOTS presented in the science book on matter particles topic

Percentage indicators of visual literacy in the evaluation and student activities on the science book on matter particles topic are presented in Figure 5.

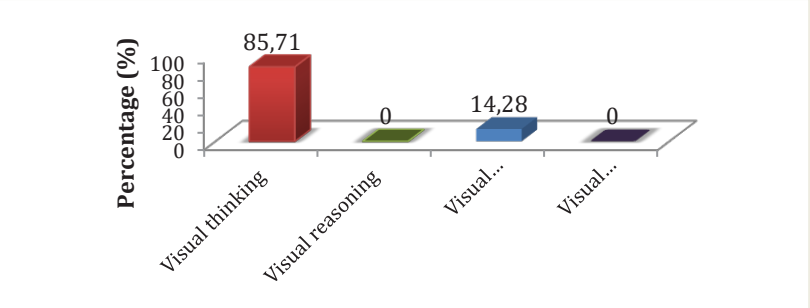

Fig 5. Percentage indicator of visual literacy presented in the science book on matter particles topic

4 Discussion

One of the basic competencies of science learning in the third year of junior high school, or the ninth grade, based on the revised 2013 curriculum was to relate the concepts of matter particles (atoms, ions, molecules), simple substance structure to the nature of material used in daily life, and the impact of the use on humans' health [18]. The theories of matter particles are the core of the science curriculum at school [19]. According to Figure 1, the form of learning material used the most by the respondents (students) for the matter particles topic are the science book published by Ministry of Education and Culture in 2018 are in the very high category (96%). Student who use teaching materials from teacher are in the medium category (48%), students who use teaching materials from the internet are in the medium category (45%) while e-books are in very low category (4%). The science book from Ministry of Education and Culture is published in printed books and is not equipped with an interactive feature, which can enhance students' learning independence.

Assisting students with the use and interpretation of representations plays a vital role in science. Representations can help them to really comprehend scientific phenomena in real live [20]. In Figure 2, it can be seen that dominant vertical representations exist in the book published by Ministry of Education and Culture is the symbolic level with the very high category (82.22%), while the macro level is in the very low category (7.16%) and the sub-micro level with very low category (10.16%). The phenomenon on the topic of matter particles is abstract so that it is difficult to present in classroom learning. The particles that make up materials (atoms, ions, molecules) are abstract and of course they cannot be seen directly so they need help to learn them, namely using vertical representations.

The benefit of using vertical representations is to be able to demonstrate the relations between the phenomena at the macro, micro, sub micro, and symbolic levels [12]. The vertical representations at the four levels can be described in proportion and the phenomena relating to the topic of matter particles are visualized well with them. This idea is backed up by Fadiawati and Tania's finding that the three levels of chemical representations (symbolic, macroscopic, and sub microscopic) should be described together in order for students to have a good understanding of the material [21]. Adadan deduces that the science learning involving multiple representations is proven effective in improving and preserving students' scientific understanding [19].

It is a sound inference that the use of vertical representations to elucidate everyday phenomena is undeniably essential. Water is one example. Water in a glass, which is visible

without any aids, is still within the macro level. Its hydrogen bond is within the sub micro level, and the H_2O chemical formula (less commonly, H-O-H) can be used to represent the basic particles of water [22]. Students have a chance to analyze the micro level of water and train themselves to think visually, changing information from pictures, graphics, or others, which contributes to communicating the acquired information [15].

The total number of student activities and practice questions presented in the science book published by the Ministry of Education and Cultre are 46 questions. Referring to Figure 3, it can be seen that student activities and practice questions are still identified as evaluating LOTS in the medium category (58.69%). Student activities and practice questions that train HOTS in the low category (26.08%) and visual literacy in the very low category (15.21%). The percentage of student activities and practice questions which train students' HOTS and visual literacy in the book published by Kemendibud are in Pictures 4 and 5.

From Figure 4, it is known that the student activities and exercise questions presented in the science book published by the Ministry of Education and Cultre which can improve students' HOTS in the book cover the following indicators: 1) analyzing, which falls into the medium category (58.33%), 2) evaluating, which falls into the low category (33.33%), and 3) creation, which falls into the very low category (8.33%). HOTS make it possible for students to see the concepts holistically and apply their ideas effectively to solve problems in real life [23]. HOTS are involved in the process of supplying new knowledge by way of skills, critical thinking strategies, and creative thoughts. It is unquestionably essential to lead students' thinking skills to improvement through science learning at school.

Figure 5 indicates that the student activities and exercise questions in the scince book published by the Ministry of Education and Cultre have not yet provided adequate training in visual literacy with respect to the visual reasioning indicator and visual association, while visual thinking is categorized as very high (85.71%), and visual discrimination is categorized very low (14.28%). Transitioning text to a visual format can reduce the cognitive load on students by providing clarity on complex concepts so that they are easier for students to understand [24]. Visual literacy is the ability to change visuals into verbal language, or vice versa, so that visual messages are formed [22]. According to Kiper *et al.*, the characteristic of someone with enough visual literacy is that they are able to interpret, comprehend, and relate visual messages so that they figure out the concept of and solution to the encountered problem [25]. Visual literacy is identified as the prominent form of literacy society must have in the 21st century [25-26].

5 Conclusion

Based on the results and discussion, it could be concluded that the teaching material most widely used by student on the learning of matter particle topic were science book 2013 curriculum published by the Ministry of Education and Culture. Science books used by students are equipped with a vertical representation, its still dominated by the symbolic level with the very high category while the macro and sub micro levels with the very low category. The vertical representation in matter particels topic in science book had not been used optimally to improve students' higher order thinking skills and visual literacy because its still dominated by the symbolic level. The percentage of student activities and practice questions its still dominated by the LOTS indicators, while HOTS indicators in the low category and visual literacy indicators in the very low category. Visual literacy indicators that were not presented on matter particles topic in the science books were visual reasioning and visual

asosiation. Whereas the use of vertical representations with makro, submicro, and symbolik levels can it easier to understand abstrack concept in matter particles topic and also could train stdents' higher order thinking skills and visual literacy. HOTS and visual literacy are very important for students to be able to compete in the 21st century, so needed a book could practice HOTS and visual literacy.

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Implementation Of Interprofessional Education To Improve Collaboration And Teamwork Capabilities

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Abstract. One of the problems in health care services is overlapping competencies due to insufficient cooperation between professions. Interprofessional learning (IPE) is required to foster a positive attitude between professions collaboration and teamwork skills between professions. The study was conducted to establish the application of IPE to increase students' collaboration and teamwork capability, using pre and post-design. The assessment of 148 students from four different professions, using instruments. The results were analyzed using Mean, SD, Min-Max, Wilcoxon Test. The results suggested an increase in scores of collaboration and teamwork, for about 51.11 and 20.67. Statistical analysis suggested a significant difference between before and after the program (p-value = 0.0001). IPE can encourage positive interaction between professions, so that students have benefited, both in terms of their profession and in studying other professions. The early application of IPE is expected to lead to better health services in the future.

Keywords: Collaborative, Interprofessional Education, Teamwork

1 Introduction

Today, one of the problems in health care is overlapping competencies due to the lack of optimal cooperation between professions. This condition can cause tensions between professions and reduce service quality [1],[2]. On the other hand, an increase in public health problems due to an increase in the number and increasingly complex causes of factors also requires multidisciplinary cooperation in the health profession [3]. Quality of health care is the production of collaboration between patients and health care providers. The quality of health care depends on the personal factors of the provider and the patient, as well as factors related to the health organization. The availability of resources, collaboration, and cooperation affects the quality of care and patient outcomes [4].

Collaboration between professions in health care is considered beneficial because it allows for a more holistic approach and thus increases the chances of success. Collaboration is an effort to improve the quality of health services [5]-[7]. Therefore, each team member needs to have adequate knowledge about each other's profession. In traditional health education, different professions learn very little about each other. In interprofessional learning (IPE), students are allowed to acquire knowledge and skills from other professions and foster mutual respect [8]. IPE is proven to provide added value benefits for improving patient outcomes [9], as well as

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overcoming fragmentation in health care delivery and separation among health professionals [3],[10]-[12]. IPE education is a necessary step in preparing a health workforce ready for collaborative practice [11].

IPE is broadly defined as a teaching and learning process that encourages collaboration between two or more professions [10],[13]. This method can increase the knowledge, skills, and understanding of learners about interprofessional practice [2],[14], and has the potential to produce an effective and integrated team facilitating and optimizing health services [7],[10],[15]. IPE also provides input to educational institutions about the importance of independent learning, peer guidance, and work-based learning [16],[17]. Small interprofessional group learning provides more value than large group lecture formats [14].

Services that overlap between professions occur due to a lack of communication between health workers in teamwork so that services received by the community are not effective and efficient [18]. Interprofessional education is a prerequisite for building a collaborative practice environment [12] because it encourages positive interactions between professions and improves attitudes towards other professionals [1],[8],[19].

Interprofessional cooperation skills cannot be expected to develop naturally but must be trained early so that students have the knowledge and experience of working together in teams with other professions. The World Health Organization (WHO) has initiated an inter-professional educational framework and collaborative practice to improve the quality of health services [1],[2],[20]. For IPE to occur, there must be a willingness from all healthcare professionals to change the way they educate and practice. This of course requires changes in traditions, education, and practices which will ultimately change the paradigm [10].

In Indonesia, the application of IPE in health higher education institutions has not been widely used. The IPE method used is joint clinical learning at health care centers and hospitals, and health services with home visits [2],[3],[18],[20]-[28],[5]-[7],[9],[12],[13],[15],[17]. Although showing good results, the learning program is implemented intermittently, ranging from 2-12 hours per week. There is concern that this will affect perceptions and cooperation between professions.

Tanjung Karang Health Polytechnic is a vocational health higher education institution that produces professional graduates. We have tried to carry out interprofessional education which involves four skills or professions, namely nursing, midwifery, environmental health, and health analyst. Learning is carried out continuously, without interruption. The methods developed were a) forming groups of different professions at the beginning of the introductory session; b) conduct introductory sessions for 24 hours (8 hours per day); c) carry out field learning for 24 days continuously and live together; d) assign a facilitator to each group since the introductory session, and participate in the field learning with students.

This paper focuses on describing the improvement of students' collaboration and teamwork capabilities through the IPE method. It is important to socialize and research IPE learning that can facilitate increased student understanding and skills for communication, values , and ethics among professions, teamwork, roles and responsibilities, and other boundaries of professional authority.

2 Methods

2.1. Learning methods

The research was conducted simultaneously with learning activities using IPE which was designed for 7th-semester students (7 semesters out of a total of 8) from 4 vocations, namely environmental health, nursing, midwifery, health analyst, totaling 148 students. We did not take samples, so measurements were made of all the 148 students of the IPE program.

Learning is carried out in two stages, classroom learning as an introduction and field learning. Classroom learning is designed by combining students from different professions in small groups of 7-8 students. Through the incorporation from the start, it is expected that a process of socialization and interaction between individual students will occur. Furthermore, this group will continue to be together until field learning.

All student groups receive a 24-hours introductory session conducted over 3 days before field learning begins. So that the whole group receives the same information and has the opportunity to meet each other and the facilitators before their first day in the field. In the introductory session, each group will get an explanation of guidelines for field practice activities, data processing, problem-solving techniques, introduction to work areas, and interprofessional problem-solving simulations.

Field learning is carried out for 8 hours/day continuously for 24 days. The tasks that must be carried out during the field study are to map public health problems through surveys, data analysis, preparation of problem-solving plans, and health problem interventions. The planning of problem-solving to intervention is carried out with an interprofessional approach that involves all team members.

2.2 Facilitator

The facilitator is 21 lecturers who come from four different professions, environmental health, nursing, midwifery, and health analyst. The main task of the facilitator is to assist students, both in introductory and field learning sessions. Also, the facilitator provides an assessment of the students' collaboration and teamwork abilities, using the instruments that have been developed. Facilitator training is conducted to obtain the same knowledge, skills, and assessment of students.

2.3 Assessment and Instruments

Assessments ranging from 1-5 (1 = very poor; 2 = poor; 3 = fair; 4 = good; 5 = excellent), were carried out twice using the pre and post design. The initial assessment is carried out at the beginning of the students being put together in small groups, and the final assessment when the program ends. The results of the assessment were analyzed using the SPSS 20.0 device, with Mean, SD, Min-Max, Wilcoxon Test.

The average score of collaboration and teamwork capabilities before and after the learning program was also used to create a quality rating scale, both for students and educational institutions. The range of score and weight/quality in Table 1.

Tables 1. Score and Quality

Collaborative		Teamwork	
Score	**Quality**	**Score**	**Quality**
35.00-69.99	Poor	20.00-39.99	Poor
70.00-104.99	Fair	40.00-59.99	Fair
105.00-139.99	Good	60.00-79.99	Good
140.00-175	Excellent	80.00-100	Excellent

The instrument was developed by representative lecturers from four professions, to assess students' teamwork and collaboration capabilities. The collaboration assessment contains 35 assessment items which are grouped into 1) roles, authorities, and responsibilities; 2) inter professions communication, while the teamwork assessment contained 20 assessment items (Table 2).

Table 2. Instruments for Interprofessional Education

NO	EVALUATION ITEMS
	Roles, Authorities, and Responsibilities
1	Demonstrate professional skills with full responsibility
2	Show the roles according to the authority and competence of each profession
3	Recognizing the limitations of one's abilities, both knowledge, and skills
4	Willing to hear and respect the opinions of others
5	Able to involve other professions according to their expertise to solve patient problems
6	Develop ideas for coordination/collaboration with other professions according to their expertise to solve patient problems
7	Describe the uniqueness of his role according to his professional abilities in a responsible manner
8	Describe strategies for building teamwork in providing health services
9	Utilizing professionals in the team according to their expertise
10	Providing services by ensuring client safety
11	Providing services fairly
12	Providing services effectively and efficiently
13	Shows adaptive attitude/can control emotions in interactions between team members
14	Able to clarify the role of each member in health services to clients and society
15	Build trusting relationships between other professions
16	Build interdependent relationships between other professions
17	Participate actively in doing client problem solving
18	Participate actively in building the capacity of the work team
19	Demonstrate the ability to do creativity and innovation to optimize service to clients
20	Demonstrate unique abilities according to professional competence to optimize service to clients
	Inter-Profession Communication
1	Use effective communication tools and techniques
2	Facilitate discussion and interaction between professions to improve team function
3	Able to communicate messages completely and systematically to clients (intent and purpose, use of actions, choices, risk of action, work procedures)
4	Able to communicate messages completely and systematically to team members (intent and purpose, use of actions, options, risk of action, work procedures)
5	Able to communicate information about patients in a clear, confident manner
6	Be able to communicate his opinion about the patient clearly and confidently

NO	EVALUATION ITEMS
7	Show respect for the opinions of others / the team
8	Able to listen actively
9	Encourage group members to express their ideas and opinions
10	Able to provide appropriate, sensitive, constructive feedback to team members
11	Able to receive feedback, respect team members' opinions, and other professional assessments
12	Provide an explanation using language that can be understood rationally,
13	Contribute to creating effective communication, conflict management, and positive working relations between professions
14	Actively participate in conflict management between professions
15	Express opinions consistently about the importance of teamwork in health services
	Teamwork
1	Describe an effective team-building process
2	Describe the importance of their respective roles ineffective team development
3	Demonstrated the ability to build consensus ethically in solving service problems to clients
4	Demonstrated the ability to build consensus ethically to solve problems in the group
5	Involving related professions according to their expertise to solve problems
6	Integrate knowledge and skills of other professions that are suitable in certain situations
7	Effectively communicate to clients, the community about the results of team decisions
8	Demonstrate an exemplary role in collaborative practice
9	Be able to realize ideas
10	Able to integrate ideas into collaborative practice
11	Able to encourage team members in managing disagreements constructively
12	Provide team members with constructive ideas for managing disagreements
13	Appreciate the skills, roles, and responsibilities of other professions in solving client, community problems
14	Collaborate and refer appropriately to solving client and community problems
15	Reflecting on individual performance to improve one's performance
16	Reflect on team performance to improve team performance
17	Using group improvement strategies to increase the effectiveness of collaboration between professions
18	Using available evidence/data to carry out teamwork practices
19	Participate actively according to his expertise to solve problems
20	Actively participate in teamwork according to their roles and functions in different situations

3. Results

The number of students participating in the study was 148 people with different skills, environmental health, nursing, midwifery, and health analysts, belonging to 21 groups. The highest proportion of expertise in midwifery was 44.6%, the lowest was environmental health at 14.2%. The number of participants is following the number of students in each professional program (Tabel 3). Based on gender, most of the students were female (89.2%), following the majority of their origin education profession, are midwifery, and nursing.

Table 3. Description of Student

Variable	Frequency	Percent
Profession		
Environmental Health	21	14.2
Laboratory Analyst	29	19.6
Midwifery	66	44.6
Nursing	32	21.6
Gender		
Male	15	10.1
Female	133	89.9

The results of the collaboration assessment showed an increase of 51.11, from 86.05 (70.00-100.00) to 137.16 (62.00-83.00). In the teamwork, there was an increase of 20.67, from 55.24 (42.00-64.00) to 76.11 (62.00-83.00). The average score is also used to determine the quality of program success, both for individual students and at educational institutions. From Table 3, it can be seen that the collaboration of students before the IPE program is in the Fair category, and after the program has improved to be Excellent. The same as the teamwork ability, initially in the Good category, increases to Excellent (Table 4).

Tabel 4. Collaboration and Teamwork Score

Variable	Mean	SD	Minimal	Maximal	Quality
Pre Collaboration	86.05	6.91	70.00	100.00	Fair
Post Collaboration	137.16	7.25	119.00	150.00	Excellent
Pre Teamwork	55.24	4.24	42.00	64.00	Good
Post Teamwork	76.11	3.82	62.00	83.00	Excellent

We also classified the score of collaboration and teamwork by profession and gender to obtain information on capacity for each group (Table 5). In general, collaboration capabilities have increased in all professions. The average before was between 85.24-86.53; and after the IPE program becomes 136.14-137.95. Also in teamwork, It can be seen that the mean scores before the IPE program ranged from 54.10 to 55.82; and the value after is 75.52-75.75.

The distribution of the score of increased collaboration and teamwork is also not different based on gender. The average score of collaboration before the IPE program for male and female students was 84.67 and 86.21; thereafter to 138.27 and 137.03. The teamwork scores from 54.53 and 55.32; increased to 74.93 and 76.25. This description shows the IPE program can increase the collaborations between professions.

Statistical analysis is used to prove an increase in collaboration and teamwork capabilities, as well as a measuring tool for the success of learning programs. In the first step, an analysis is carried out to determine the normal distribution of the data using the Kolmogorov Smirnov Test. The results of the analysis obtained an abnormal distribution of data on the value of collaboration (p-value = 0.00) and teamwork (p-value = 0.04), so it was decided to use non-parametric analysis techniques with the Wilcoxon Test.

Tabel 5. Scores of Collaborative and Teamwork Based on Profession and Gender

Variable		Profession				Gender	
		Environmental Health	**Laboratory analyst**	**Midwifery**	**Nursing**	**Male**	**Female**
Collaborative Pre-Tes	Mean	85.81	85.24	86.53	85.97	84.67	86.21
	SD	7.35	6.12	6.66	7.98	7.58	6.84
	Min	70.00	70.00	70.00	71.00	70.00	70.00
	Max	100.00	97.00	99.00	98.00	97.00	100.00
Collaborative Post-Test	Mean	137.95	136.14	137.55	136.75	138.27	137.03
	SD	7.89	6.27	7.15	8.06	8.57	7.12
	Min	120.00	123.00	123.00	119.00	120.00	119.00
	Max	150.00	148.00	150.00	150.00	148.00	150.00
Teamwork Pre-Tes	Mean	54.10	55.59	55.82	54.50	54,53	55.32
	SD	5.21	4.25	3.77	4.22	5,53	4.09
	Min	42.00	44.00	46.00	44.00	44.00	42.00
	Max	60.00	62.00	64.00	60.00	62.00	64.00
Teamwork Post-Tes	Mean	75.52	75.83	76.59	75.75	74,93	76.25
	SD	5.347	3.96	3.06	3.90	4,71	3.71
	Min	62.00	66.00	72.00	66.00	66.00	62.00
	Max	80.00	83.00	83.00	81.00	82.00	83.00

The results of the analysis (Table 6) show a significant difference between the score of collaboration before and after the IPE program (p-value = 0.0001). As well as, the teamwork score test before and after the IPE program also showed a real difference (p-value = 0.0001). These results concluded that IPE can improve the students' capabilities in collaboration and teamwork.

Tabel 6. Wilcoxon Analysis

Variable	Z	p-value
Colaboration_Post - Colaboration_Pre	-10,595	0,0001
Teamwork_Post - Teamwork_Pre	-10,761	0,0001

4. Discussion

The IPE program has had a positive impact on students in terms of their professional skills as well as in learning more about other professions. In this study, the increase in collaboration skills was 51.11, and teamwork capabilities were 20.67. Statistically, before and after the

program showed a significant difference (p-value = 0.0001). IPE learning shows added value compared to traditional methods in health education [16],[19],[22],[29].

Inter-professional education is developed from some educational theories, sociology, and psychology [29]. This method is used in health education to address fragmentation in health service delivery and the separation of health professionals [3],[10]-[12], is a step to prepare a health workforce ready for collaborative practice [11]. The focus is on health professionals and students who learn together from and about each other to improve collaboration and quality of patient care [29]. An interprofessional approach allows the sharing of professions and perspectives to form a common goal, namely restoring or maintaining health [21].

Inter-professional cooperation skills must be trained since the education period so that students have the knowledge and experience of working together in teams with other professions [1],[7],[20]. The interprofessional collaboration will improve the quality of health services [4],[5],[11],[19],[30] because it can avoid competency overlaps and reduce tensions between professions in providing services [1],[2]. The quality of health services is the result of the collaboration between patients and health service providers, which is influenced by personal factors from service providers and patients, as well as factors related to health organizations [4].

In student groups, there will be communication, exchange of ideas, a learning process, until finally finding an agreement to solve health problems [18],[24]. Good communication is the key to creating team collaborations [11],[12],[22],[25],[27],[31]. Perceptions of individuals and other professions are important factors that must be considered at the beginning of learning. Perception has an impact on attitudes and willingness to be involved in teamwork [32]. Poor perceptions will hinder the occurrence of communication between students [3],[17]. A positive attitude will arise if the program can provide opportunities for professional role development, independence, and self-esteem, learn about other professions, and learn how to work in teams [25],[27]. In this case, the role of the facilitator is very important in forming perceptions [18].

In IPE learning, the role of the facilitator greatly affects students' readiness. A facilitator must have the skill to optimize learning opportunities, appreciate differences and expertise, and be familiar with the dynamics of IPE learning [33],[34]. Facilitators who make disparaging comments and negative stereotypes will weaken the inter-professional message (29). Also, a facilitator must be an innovator, because students do not have experience in solving community health problems. Facilitators must understand the pedagogical methods and must provide students with constructive feedback [27]. A facilitator must also be able to act as an innovator in implementing IPE [13],[16],[18],[22],[33].

Developing professional skills is the most important goal of any learning program. The IPE concept is to provide opportunities for all students to improve their professional skills through a teaching and learning process that encourages collaboration between two or more professions. In this paper, we have proven that there is an increase in collaboration and teamwork capabilities in each profession and gender. Increased collaboration ability based on expertise ranges from 50.9-52.42; teamwork ranges from 20,23-21,42. In the gender group, increased collaboration capabilities ranged from 50.82 to 53.60; teamwork ranges from 20.40-20.93. These results indicate that IPE learning can be followed by all students, and can encourage positive interaction between professions, and improve attitudes towards other professionals. Every student has benefited, both in terms of their profession and in studying other professions.

Lack of optimal cooperation between professions can cause tension [1],[2], the increasingly complex health problems and increasingly complex causal factors, require collaboration with multidisciplinary health professions [6]. IPE can promote teamwork in the future work life of students [32]. Thus, the application of learning the IPE method from an early age is expected to lead to better health services in the future. Interprofessional education should be introduced early during health education to promote collaborative understanding, and to counteract negative perceptions among health professionals [27].

Several IPE methods have been developed, but the IPE program we have developed seems to show better results. We combine students from different professions in small groups from the time of classical introductions. Furthermore, this group lives together during the field study. Facilitators are assigned to each group since the classical introduction period. In the field study, the facilitator lives with the group during the learning process. Facilitators are the key to success in the IPE program.

5. Conclusion

We have proven that the IPE method can enhance collaboration and teamwork capabilities. This method can encourage positive interaction between professions, improve attitudes towards other professionals, and get benefits from a professional perspective. Communication is the main key to creating collaboration and teamwork that begins with positive perceptions between students and between professions. The role of the facilitator is an important part of building student perceptions. Early adoption of IPE is expected to lead to better health services in the future.

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Analysis Of Preliminary Science Literation Of Primary Teacher Education At Metro Students

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Abstract. This paper attempted to analyze the initial scientific literacy skills of students of the PGSD FKIP University of Lampung study program. A quantitative research design with a descriptive method design was performed. The research was conducted in campus B FKIP University of Lampung. The subjects of this study were the third semester students of PGSD Campus B FKIP University of Lampung. The total of them were 51 students. A scientific literacy test was employed as the instrument. There were 20 questions on the scientific literacy test in the form of multiple choice questions. Based on the results of the research and data analysis obtained from this study, it can be concluded that the results of the analysis show that the scientific literacy skills of students who have initial literacy abilities are less than those who have not. The percentage of students who achieved initial scientific literacy skills was 45.09%, while those who had not reached the level of 54.90%.

Keywords: Science, literation.

1 Introduction

The ability of scientific literacy is a fundamental thing that must be possessed by students in facing the global era to be able to meet the needs of life in various situations. Science is a important key for the development of science and technology in order to support the competitiveness and progress of a nation so that it can compete in the international arena. Science is one of the subjects that play a important role in education because science can be a provision for students toface various challenges in the global era. Therefore, a learning method is needed that can prepare students to have good competence and to be literate in science and technology, able to think logically, critically, creatively, argue correctly, communicate and collaborate. Science literacy can be termed science literacy ability, namely the ability to understand science, communicate science (oral and write), and apply science skills to solve problems so that they have high attitudes and sensitivity to themselves and their environment in making decisions based on science considerations [1].

Increasing scientific literacy in learning can improve aspects of education, while the level of literacy in Indonesia is still lackin [2]. From the results of a study by 69 countries, the achievements of Indonesian students in science, reading, and mathematics are still ranked 62, 61, and 63. Science literacy has been widely developed in the world of education by countries such as America, Taiwan, China, Hong Kong, Australia, Germany, and Chile, even developing countries like Nigeria [3].

According to [4], Literacy Conditions in Indonesia: - Literacy, Indonesia ranks 64th out of 65th countries - Student reading level. Indonesia ranks 57th out of 65th countries (PISA, 2010) - Reading interest index: 0.001 (every 1,000 population only one reads) - Adult literacy rate: 65.5 percent (UNESCO, 2012) In the same study, PISA also placed the reading position of

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Indonesian students at a number of 57 out of 65 countries studied. "PISA said that not a single student in Indonesia achieved literacy scores at the fifth level, only 0.4 percent of students have literacy levels at level four. The rest is below level three, even below level one.

Accordingly, according to the results of the 2012 PISA survey, Indonesia's scientific literacy score is 382 and is in the order of 63 out of 64 countries [5]. Based on a survey conducted by Trends in International Mathematics and Science Study (TIMSS) which is conducted every four years in 2007 Indonesia was ranked 35th out of 49 countries and in 2011 Indonesia was ranked 40th out of 42 countries. These results indicate that the mean score of Indonesian scientific literacy is below the mean international score and must be addressed immediately [6].

For PGSD students as prospective teachers, scientific literacy skills are an important aspect that must be mastered, because they affect the science learning process in elementary schools [7]. At this time, science learning in the 21st century is turning into student-centered learning. Therefore, as a student as a teacher candidate must have qualified literacy skills. The success of learning is shown if they are able to understand what is being learned and can apply it in solving various problems in everyday life. Science literacy can be used as a reference for the development of science learning because science literacy is considered effective in developing science learning in the 21st century [8].

From the results of observations in the learning process of elementary school science studies in the PGSD at FKIP Unila, it can be seen that students' science literacy skills are still base. The base science literacy can be seen from the many students who have difficulty understanding course material and difficulties in analyzing the lecture material given. The base science literacy skills of prospective teacher students will have an impact on the learning success of students in the schools they will later teach.

In addition, the base science literacy of student-teacher candidates will have an impact on the occurrence of misconceptions in students who can occur so that cognitive, affective and psychomotor learning outcomes are low. Given the very important role of the teacher in learning, a teacher must have more abilities than others to improve the quality of education. Learning carried out by the teacher must also be able to arouse students' interest in learning, so that learning becomes more meaningful. Not only teachers but prospective elementary school teachers (PGSD students) must also have better abilities so that later they can carry out their duties as teachers as well as possible [7].

According to [9], science learning is also responsible for students' science literacy. Science literacy skills reflect the readiness of citizens to respond to global challenges. Science is an important key for the development of science and technology in order to support the competitiveness and progress of a nation so that it can compete in the international arena. Science literacy can apply concepts or facts obtained in school with natural phenomena that occur in everyday life. Science literacy is a goal to be achieved by subjects belonging to science. In general, the material obtained is only partial, just memorizing and has not been applied in everyday life. In addition, generally the transfer of knowledge from educators to students regarding a concept is mostly conveyed by the abstract lecture method so that it is difficult to understand the concept.

In line with the above problems of several studies on science literacy skills, research [10] is a descriptive study that aims to identify students' science literacy abilities in ecosystem material. The research subjects were students of class VIII at Madrasah Tsanawiyah Nurul Ikhsan, Belawa Village, Lemahabang District, Cirebon Regency. The instrument used was a science literacy test developed by the author concerning the indicators contained in the development of the TOSLS (Test of Scientific Literacy Skills) test kit by [11]. The results of

this study were the students' science literacy skills at Madrasah Tsanawiyah Nurul Ikhsan in the medium category (42.35). It is necessary to apply learning using an approach that can support to improve students' scientific literacy skills.

Furthermore, based on the results of research and data analysis [12], this type of research is used to describe the comparison between students' basic science literacy abilities, which are included in the categories: nominal, functional, conceptual, and multidimensional obtained from this study, it can be concluded that the following. (1) The initial ability of science literacy in students who are research subjects is only at two levels of the four categories of science literacy. (2) The results of the analysis show that the students' science literacy abilities for the five questions were more in the nominal category in the percentage range of 54% - 95%, a small portion in the functional category in the percentage range of 4% - 9%. For the conceptual and multidimensional categories, it is at a percentage of 0%. (3) While some students could not provide answers to the five test numbers that were completed with a percentage range of 4% - 45%, [12].

According to research [7], what was carried out in the PGSD study program in semester II students was to see the scientific literacy abilities of PGSD students in basic science concept's courses? The science literacy skills of PGSD students have not matched expectations. There are still many PGSD students whose science literacy is still low. This is evidenced by the few who have reached science literacy. The results obtained from PGSD students, from 74 students from unit A and B that was the research subjects, namely 25 people (52.6.7%) from unit A and 26 people (61%) unit B had reached science literacy and the remaining 18 people in unit A (47.3%), and 14 people in unit B (38.8%) had not reached literacy. From this, it can be seen that the ability of PGSD students in science literacy is still low and must be improved not only in the content (content) of science, but also on the context, process, and attitude. One of the efforts to improve the science literacy of PGSD students is through the improvement of the learning process carried out, which not only emphasizes mastering concepts, but also pays attention to other aspects. Based on the research results, the researcher suggests that it is necessary to identify science literacy skills in elementary school teachers.

The importance of science literacy for everyone as a citizen, citizen and citizen of the world has been recognized in developed countries. Every citizen needs to have a level of science literacy in order to survive in nature, and in his place of work armed with the knowledge, understanding, skills and values contained therein. With the various problems that exist at the basic education level, it is necessary to increase the science literacy skills of PGSD students so that later they can develop the potential of students and can help students to improve learning outcomes and trigger students to be able to solve problems in the surrounding environment. Scientific literacy is very important for students to have as a provision to face the challenges of the 21st century development.

The purpose of this study was to see the initial scientific literacy abilities of PGSD students in basic science concept's courses. Therefore, the researcher is interested in researching "Analysis of the Early Science Literacy Ability of PGSD Study Program Students in Elementary Science Studies." This research was conducted to categorize students' abilities in science literacy, so seven indicators were used to determine science literacy skills. The seven indicators refer to the science literacy indicator from [11]. The seven measures of science literacy indicators are (1) identifying valid science opinions (2) conducting an effective literature search (3) understanding the elements of research design and how they impact findings / conclusions (4) making graphs appropriately of the data; (5) solving problems using quantitative skills, including basic statistics; (6) understand and interpret basic statistics; (7) make inferences, predictions, and draw conclusions based on quantitative data.

The indicator of science literacy skills developed by [11] was chosen because it is very simple, easy to implement and reflects science literacy skills. This study conducted a preliminary analysis to show the percentage of students' science literacy skills possessed by PGSD FKIP Unila students.

2 Method

This study applies a quantitative research design with a descriptive method design. According to [13] quantitative research is research aimed at understanding phenomena naturally, openly, without any engineering controlling variables, obtained from the perspective of participants with interactive strategies.The data processing technique used is adjusted to the data obtained, which includes several stages, namely:

Analysis Of Preliminary Science Literation Of PGSD Metro Students.

a. Determination of the minimal criteria for determined whether the PGSD student has reached science literacy or not. In this study, the minimal limit to be said to have reached science literacy is 65. So PGSD students who score ≥ 65 are declared to have reached science literacy, and those who score <65 are declared not to have reached science literacy.
b. The scoring for each question, where the maximum score for each question is 1, so the maximum score is 20 and is converted to 100.
c. Converting the scores obtained into values, using equations:

$$\text{Score} = \frac{\text{Score Obatined}}{\text{Maximum Score}} \times 100\% \quad (1)$$

d. Determine the research subjects in groups who have reached natural science literacy and those who have not reached science literacy.
e. After processing the data, it is then analyzed the data for further analysis and description.

3 Results and discussion

3.1 Results

The results of the study along with a discussion of the basic science literacy abilities of PGSD study program students. The data and information processed are in the form of a science literacy basic ability test. The initial stage of the research was the preparation of a scientific literacy ability test and used indicators adapted from [11].

Analyze of the Average Score of each Indicator of Science Literacy. Increasing science literacy can be grouped by each indicator, namely: (1) Identifying valid science opinions (for example, opinions / theories to support hypotheses; (2) Performing effective literature searches (for example, example evaluating the validity of sources and distinguishing between types of sources); (2) 3) Understand the elements in the research design; (4) Make graphs appropriately from the data, (5) Solve problems using quantitative skills, including basic statistics (for example, example calculating average, probability, percentage, frequency); (6) Understanding and interpret basic statistics (interpret errors, understand the need for statistical analysis); (7) Make inferences, predictions, and draw conclusions based on quantitative data. The mean value of the seven indicators of scientific literacy is shown in Figure 1.

Figure 1. Bar Chart of Science Literacy for Each Indicator

Based on Figure 4, it can be seen that the mean value for the first indicator's science literacy is 0.69. The average value of science literacy for the second indicator is 0.74. The average scores of scientific literacy in the third to seventh indicators were 0.63, 0.73, 0.59, 0.68, and 0.69, respectively. From the diagram, it is found that the second indicator has the highest average, while the lowest is on indicator five.

Student Initial Ability Value. Data on the acquisition of student scores, determining the least criteria for determining whether PGSD students have reached science literacy or not. In this study, the minimal limit to be said to have reached scientific literacy is 65. So PGSD students who score ≥ 65 are declared to have reached science literacy, and those who score <65 are declared not to have reached science literacy. Table 1 describes the percentage of students' initial scientific literacy ability calculated from the value after working on the questions. Table 1. Rate Percentage of Students' Initial Science Literacy Ability.

Table 1. shows that students who have basic literacy skills are less than those who have not. The percentage of students who achieved basic scientific literacy skills was 45.09%, while those who had not reached were 54.90%.

No	Number of Students (people)	Percentage of Students' Initial Science Literacy Ability	
		≤ 65	**≤ 65**
1	51	54.90%	45.09%

Discussion. From the results of the study, it was found that the average result of the fifth indicator, namely solving problems using quantitative skills, including basic statistics, is the inability of students to explain science phenomena and to use science evidence. It shows that students have not been able to solve problems scientifically, as well as communicate or save results. Save the results of the experiments conducted in writing. These results indicate that students in the process of learning science or science are still not implemented according to the nature of science, namely products, processes and attitudes.

Overall, students' science literacy skills have low science literacy skills. This is shown from the results of the students' scientific literacy test questions that can only determine the problem but cannot provide a science explanation. Several factors cause, among others, students who are not used to completing tests of science literacy skills or problems related to science process skills, which are the main part of scientific literacy. Science literacy related to science material pays attention to cognitive and effective aspects. The cognitive aspect includes knowledge and its capacity to use knowledge effectively and involves cognitive processes that are characteristic of science in the personal, social and global fields. The affective aspect deals with problems that can be solved by scientific knowledge and shapes students who are able to take decisions at present and in the future.

According to [11], science literacy ability is defined as a person's ability to distinguish science facts from a variety of information, recognize and analyze the use of science investigation methods and the ability to organize, analyze, interpret quantitative data and science information.

Based on the results of the analysis of students' basic literacy abilities, it shows that students who have science literacy skills are smaller than those who do not. The percentage of students who achieved basic scientific literacy skills was 45.09%, while those who had not reached were 54.90%. There needs to be learning that can train science process skills so that students are accustomed to doing things related to activities, including: formulating experiment skills, questioning skills, hypothesis formulation skills, experimental planning skills, conclusion drawing skills, and predictive skills to solve problems.

The factors causing the lack of students' initial abilities in science literacy are: students rarely do practicum activities. Students spend a lot of time with knowledge on the aspect of memorization, which proves that students have difficulty applying proper science knowledge and explaining potential implications with society and then communicating them. This is supported by research [14] that teacher learning strategies greatly affect the level of science literacy. Students prefer it when lecturers use demonstration strategies or invite students to experiment when compared to remember and applying scientific knowledge. According to [15] the solutions that can be offered to improve science literacy skills are the need for learning through experiments, Problem-Based Learning (PBL) strategies and learning cycle learning models. This is in line with [16], so science literacy skills can improve properly. Teachers are encouraged to introduce and teach material using various strategies that have a scientific literacy perspective, including teaching material through experiments that can stimulate higher-order thinking and are contextual in nature.

Science literacy skills measured in this study include the ability to explain science phenomena, evaluate and design science investigations, interpret logical data and evidence (LS3). The score distribution shows that the most correct answer samples are in the ability to interpret data and science evidence, secondly on the ability to explain scientific phenomena, and finally evaluate and design systematic investigations. Perform practicum activities; (2) Students do not understand the terms in some science investigation activities such

as independent variables and dependent variables; (3) Learners spend more time with science that promotes memorization [17].

In addition, according to [18]. The achievement of more optimal science literacy skills can be realized with proper handling, such as characteristics and potential of students require special attention, developments of teaching materials and arrangement of instruments are suitable for student conditions. Well-managed learning activities and learning strategies are right on target? For examples with by developing modules that can optimally support students' science literacy. In line with this, according to [19] "Scientific literacy is straight correlated with building a new generation of stronger science minds that can effectively communicate research science to the overall public." Science literacy is clearly correlated with building brand new generations that have strong science thoughts and attitudes that can productively communicate knowledge and research results to the general public. A person who has science literacy is a person who uses scientific concepts, has science process skills to assess daily decisions when dealing with other people, society and their environment, including social and economic development [10].

Analysis Of Preliminary Science Literation Of Pgsd Metro Students. From the results of research conducted that the scientific literacy ability of PGSD FKIP Unila students from the indicator [11] analyzed there was no difference between indicators 1-7. The analysis of each indicator shows that the average literacy ability of students is not much different in answering questions related to literacy. This initial analysis of scientific literacy skills is a benchmark for lecturers in delivering science material with appropriate learning strategies. The literacy skills possessed by students will be a provision to use them in the learning process at school as educators in the process of explaining the nature of science as a product, process and attitude and relating the material to everyday life.

4 Conclusion

Students' science literacy ability towards science study material is still low. Based on the results of research and data analysis obtained from this study, it can be concluded that the results of the analysis show that the science literacy skills of students who have basic literacy abilities are less than those who have not. The percentage of students who achieved basic science literacy skills was 45.09%, while those who had not reached were 54.90%. The mean value for the first indicator's science literacy ability is 0.69. The average value of scientific literacy for the second indicator is 0.74. The mean scores of science literacy in the third to seventh indicators were 0.63, 0.73, 0.59, 0.68, and 0.69, respectively.

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Teachers' and Students' Perceptions on The Use of SSI-based Assessment Instrument for Measuring Students' Ability to Collaborate

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Abstract. The purpose of this study was to analyze and explain teachers' and students' perceptions on the SSI-based assessment instrument for measuring students' ability to collaborate. The method used was the descriptive method. The samples of this study cover ten junior high school teachers and one hundred junior high school students from ten different schools. Data collection was administered by means of questionnaires, while the proportions technique was used for analyzing the collected data. The results show that teachers' perceptions on the SSI-based instrument assessment in the implementation aspect were in low category, because in the learning process the teachers did not raised the issue of science (SSI) often (medium category). Learners' perceptions of the aspect of collaboration ability were also in low category as teachers have not assessed learners' ability to collaborate. It can be concluded that the SSI-based assessment instrument is needed by both teachers and learners to accurately measure learners' ability to collaborate.

Keywords: assessment instrument, issue of science (SSI), collaborate skills.

1 Introduction

In the 21st century, education plays a crucial role in improving the quality of human resources. The human resources required are not only those with high quality, but also those who are skilled. The skills required cover the ability to: collaborate, think in higher order, work creatively and skillfully, tolerate and adapt to various cultures, communicate well, and commit to life-long learning [1]. A set of special abilities learners need to have covers the ability to create and innovate, communicate and collaborate, research and gain information, think critically, solve problems, make decisions, involve in digital citizenship, comprehend concepts, and operate products of technology [2]-[4].

As mentioned earlier, ability to collaborate is one of the requirements learners need to have. Collaborating is all about learning to plan and work with partners, to consider different perspectives while actively contributing ideas in a discussion related to certain topic, as well as to listen and support others [5]. In order to create an effective collaboration in learning, five things have to be present: 1) positive inter-dependence; 2) individual responsibility; 3) growing interaction; 4) social awareness; 5) group management [6].

Collaboration in learning is regarded as important due to its was potential to improve critical thinking skills and to help learners achieve higher quality learning results [7],[8]. This is reflected through the results of the analysis on learners' achievement in science lessons in a study on the results of PISA (2015) in which there were 49 out of 72 participating countries had

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the average science score under 501 [9]. This shows that Indonesian learners' thinking performance is low. It also proves that most of them are in lower achiever category as they rely on memorization in dealing with science lessons. The test items in PISA demand the test takers to comprehend and solve problems. One of the possible causes of the poor test results was learners' lack of training and practice in dealing with such test items [10].

One of the many ways to measure learners' ability to collaborate is by conducting a lesson which demands learners to solve problems on topics closely related to their daily life matters that they are often unaware of. An example of this topic is the impact of global warming caused by the extreme raise of temperature. This problem is related to climate change and its impact on the ecosystem topic in science lessons. This problem is not only related to science, but also to social life that it is considered as a socio-scientific issue.

This indicates a need for improvement in the way science lesson is delivered in the classrooms in order to enable educators to measure learners' ability to collaborate while teaching them at the same time [11]. According to Khishfe, one of the many approaches often used for supporting learning is through the integration of socio-scientific issues into lessons [12]. SSI (socio-scientific issue) is regarded as an alternative to solve the afore mentioned issue because it involves the hot issues related to science which are growing in the society. The issues in SSI are science-related and open-ended, both conceptually and procedurally. These issues also have possible rational solving which could be influenced by several social aspects like cultural identity, politics, economy, and ethics [4].

The learning process aiming for fostering collaboration will only run effectively when teachers have good and continuous quality assurance [13],[14]. This can only be achieved through an assessment method which can provide a range of meaningful feedback when learning takes place. Therefore, the assessment process has to be integrated and authentic that will be able to measure learners' real ability [13].

Assessment on students has to meet the scoring standard covering competence of behavior, knowledge, and skills [15]-[17]. According to Poerwanti, assessment can be defined as a process to gain information in any forms which can be used as the base in making decision related to students' overall ability, receptive ability, curriculum, learning program, school condition, and policies, that it stands as a process which is able to determine the standard of measurement in teaching and learning [9].

In attempt to create a type of student with ability collaborate, a correct instrument for assessment and learning is required. SSI-based learning is assumed to possess that quality. Some studies have shown that SSI-based learning can enhance learners' scientific literacy and ability to collaborate [18]. Considering that, this study aims to describe teachers' and students' perceptions on the use of SSI-based assessment instrument for measuring students' ability to collaborate.

2 Material and Method

This research was conducted in August 2019 in ten junior high schools with the total samples of 10 teachers and 100 students. The descriptive approach was taken along with survey method to describe any phenomena happening in the field related to the use of SSI-based assessment instruments in measuring students' ability to collaborate. The data in form descriptive statistics were obtained through questionnaire. The data were analysed through manual scoring with every checked item considered as teachers' agreement with the statement

in the questionnaire. The percentage of every questionnaire item was counted based on the formula proposed by Sudjana [19] and criteria proposed by Arikunto [20].

Table 1. Interpretation of Percentages in Questionnaire.

Percentage	Criteria
80,1 - 100,0	Very High
60,1 - 80,0	High
40,1 - 60,0	Average
20,1 - 40,0	Low
0,0 - 20,0	Very Low

3 Result

The results of the data analysis in this research concludes that, in general, the SSI-based assessment instrument in learning activities has not been applied. It is shown on Table 2.

Table 2. Teachers' Perceptions on the use of SSI-based instrument for Measuring Learners' Ability to Collaborate.

No	Question	YES (%)	NO (%)
1	Strategy/method implemented by teachers can help students in comprehending materials in science lessons.	50	50
2	Teacher understands forms of lessons based on social issues related to science.	50	50
3	Teachers have ever implemented SSI-based lessons in teaching science.	30	70
4	Teachers understand about ability to collaborate.	40	60
5	Teachers have trained students to collaborate.	40	60
6	It is important to measure students' ability to collaborate.	80	20
7	Teachers have ever measured students' ability to collaborate.	50	50
8	The results of measurement have met teachers' expectations.	30	70
9	An SSI-based assessment instrument is needed for measuring students' ability to collaborate.	100	0
	Average	**54**	**46**

On table 2, it is shown that the percentages of the affirmation and negation have significant difference for every item. Only very few teachers implemented SSI-based lessons in the 'average' category while the percentage of their use of assessment instrument for measuring learners' ability to collaborate remains in 'low' category.

Table 3. Students' Perceptions on the Use of SSI-base Assessment Instrument for Measuring Learners' Ability to Collaborate

No	Question	YES (%)	NO (%)
1	Learners find it difficult to understand materials in science lessons.	85	15
2	Learners have experienced SSI-based learning in the classroom.	25	75
3	Teachers relate learning materials with phenomena in the surrounding environment.	40	60
4	Teachers bring materials containing science facts.	50	50
5	Teachers deliver the materials only by lecturing.	50	50
6	Teachers help learners in developing their ability to collaborate.	80	20
7	Teachers ask learners to discuss some topics.	21	79
8	Teachers often set time for learners to deal with some questions (time management).	0	100

9	Teachers often rate learners' performance as the group discussion takes place (seeking to solve problems through peer assistance).	0	100
10	Teachers set a number of sources of information to support problem solving activity in discussions.	39	61
11	Teachers set turn (and pay attention) for each student in discussion.	61	39
	Average	**40**	**60**

On Table 3, there is a clear difference between the percentages of affirmation and negation in every item. Most teachers have never measured learners' ability to collaborate (low percentage).

These findings are discussed further in the discussion section.

4 Discussion

4.1 Teachers' perceptions on the use of SSI-based assessment instrument for measuring learners' ability to collaborate

Based on the data analysis on Table 2, it can be seen that most teachers only rely on lecturing to help learners comprehend science lessons. This does not seem to attract learners as they consider science to be a difficult, abstract, and incomprehensible subject. Due to this, students' ability to collaborate remains unmeasured. This indicates a need for an attempt to improve the quality of activities during science lessons in the classroom in order to solve this persisting problem [21]. One of the many approaches to be taken is the socio-scientific issues (SSI). SSI is expected to be able to cover existing science-related problems or issues in the society [4].

Delivering lessons through SSI approach can also change the mood of the class from a teacher-centered into a more student-centered by means of discussions. Through discussions, collaboration can be fostered. In a discussion involving science-related issues, social interactions leading to the enrichment and perfection of students' understanding can be promoted [22]. This can be achieved by allowing students to explore issues based on concepts and scientific problems, contra version, and public discussion which are often influenced by socio-politics situation [23]. Bringing socio-scientific issues into lesson can drive students to become more accustomed to: applying science in their actions, developing their abilities to evaluate information they receive, making decisions on controversial socio-scientific problems, and getting into a discussion about socio-scientific issues burning in the society [24].

There are some other benefits of developing students' ability to collaborate, such as: tolerating differences in a group, improving their perceiving prowess, and enhancing problem solving and higher order thinking skill [25]. From Table 2, it can be inferred that only 50% of the methods, which are mostly based on discussion and lectures, implemented by teachers could help learners in comprehending science lesson. Half of the respondents among the teachers understood something about SSI-based lessons, but 70% of them did not apply it as they considered it as something new that they are not really familiar with. This is not very satisfying considering that Karisan suggested that SSI-based learning strategies can enhance and measure learners' scientific literacy and ability to collaborate at them same time [24]. 80% of the participating teachers agreed that rating learners' ability to collaborate is essential as a part of the 21st century demand, yet they did not train their learners to collaborate. 60% of the students admitted that they have never had such training. This results in dissatisfying results of the many attempts to measure learners' ability to collaborate conducted by the teachers. All the teachers

agreed that there is a need for an SSI-based assessment instrument to measure learners' ability to collaborate.

4.2 Learners' Perceptions on the Use of SSI-based Lessons to Measure their Ability to Collaborate

There are not many differences between this case and teachers' perceptions on the use of SSI-based assessment instrument for measuring learners' ability to collaborate. Based on Table 3, it can be inferred that 85% of the learners still find it difficult to comprehend science lessons. One of the factors influencing this condition is the fact that only 50% of the respondents among teachers implemented SSI-based lessons, while the rest still relied on lecturing. During the discussion, only 40% of the teachers relate the learning materials to the environment and 50% of them only bring up science facts in certain topics like pollution and climate change. The teachers did not effectively measure learners' ability to collaborate as they judged it based on only three out of five indicators. All of them did not rate learners' ability in time management and contribution in solving problems. Very few of them (21%) rate learners' performance during the discussion. The same condition can be found in determining students' turn (61%) and judging learners' problem-solving skills in the ongoing discussion (39%). This indicates the need for a better way to measure learners' ability to collaborate as teachers have poor ability in developing an assessment instrument for this.

5 Conclusion

This research shows that most teachers (70%) have not used SSI-based instruments. Most of them (75%) even have not measured their learners' ability to collaborate. Both students and teachers (100%) agreed that they need an SSI-based assessment instrument to measure learners' ability to collaborate.

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Teachers' and Students' Perceptions of the Socio-Scientific Issues (SSI)-based Electronic Student Worksheets for Improving Scientific Literacy and Collaboration Skills

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Abstract. This study aims to improve students' literacy skills and scientific collaboration in learning using SSI-based electronic student worksheets. The method used in this research is the descriptive method. The study population was one teacher and one hundred students each from ten secondary schools. Data collection involves a questionnaire with percentages. The results of this study provide an understanding that teachers' perceptions of learning using SSI-based electronic worksheets at the implementation level are still in the very low category because teachers still prefer conventional worksheets and books. Teachers' perceptions seen from the perspective of scientific literacy are still categorized as "low", but at least teachers have tried to involve them in learning activities. The teacher's perception of student collaboration skills is in a low category too. Likewise, students' perceptions of learning involving SSI-based electronic worksheets for scientific literacy and collaboration skills were also categorized as "very low". On the other hand, the percentage of students who need SSI-based electronic student worksheets in learning is in the high category. Considering the results, it is acceptable to conclude that the use of SSI-based electronic student worksheets in learning is very important for the improvement of students' scientific literacy and collaboration skills.

Keywords: SSI, electronic student worksheets, electronic student worksheets, scientific literacy and collaboration skills.

1 Introduction

The twenty-first century is an industrialization and globalization era, which is marked by the high pace of technological development and the spread of information, which affects every aspect of life. The high pace of the development and spread is in line with the challenges to be faced, in which case the challenges rising to the surface are getting more and more complex, and human resources able to deal with such challenges are of paramount importance. Quality human resources can be formed out of the roles of education. The mastery of science and technology (known as IPTEK (Ilmu Pengetahuan dan Teknologi) in Indonesian) holds the key role in the development of learners' personal skills in the field of science and technology [1]. For the sake of personal, social, economic and environmental interests, learners need to be equipped with adequate competence so as to be active participants in their society [2] so that they will be able to solve problems and beat challenges in life.

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The essence of science learning is the learning in the forms of processes, knowledge and products. Technology is a vivid example of scientific products, and it should be feasible to use science to solve problems in daily life. In order that learners can solve their problems, they should have scientific literacy. Scientific literacy affects learners in making a decision, either a personal or group decision. In relation to the abovementioned case, the learning based on the 2013 curriculum focuses on scientific literacy achievements in relation to solving social issues globally. It is a form of learning in accordance with the essence of scientific learning, which not only focuses on the acquisition and retention of knowledge, but also on the scientific processes and attitude. Nowadays, one of the applicable learning strategies for achieving scientific literacy for learners is Socio-Scientific Issues (SSI), which is a learning strategy whose goal is to stimulate intellectual, moral, and ethical development, along with the awareness of the relationship between science and social life.

Problem solving requires a group discussion (team-building) in which the participants take into consideration different perspectives and fully participate in the talk of the topic till they reach an agreement as the solution to the problem or the process of making a decision. The term team building is known as collaboration these days. The term collaboration means more than just cooperation. It means learning to design while working together as a team, taking different perspectives into account, and taking part in a certain topic by contributing as much as possible, listening to and supporting the others [3]. As technological development advances, collaboration skills are spotlighted by researchers. Collaboration is a process in which two persons or more work together for a certain purpose through face-to-face interaction [4]. The interaction can actually be made directly or indirectly via internet-based communications, which are also known as e-tools, such as emails, blogs, and wikis. Such indirect communication can increase digital interaction between two persons or more while they are seeking a mutual agreement as the solution to a problem or a process of making a decision.

The intention of improving learners' science literacy and collaboration skills, the learning involving the e-tool electronic student worksheets is applied. The results of several previous studies demonstrate that the use of such a learning medium as the electronic student worksheets is an option for improving learners' studying mastery, high-order thinking skills, and learning outcomes, and for increasing their interest [5],[6]. Unfortunately, the survey carried out by The Trends in International Mathematics and Science Study (TIMSS) in 2015 revealed that Indonesia ranked forty-sixth in a group of 51, with an average of 397 for science mastery. It is not the only reference in the form of a survey. Another survey, carried out by Programme for International Student Assessment (PISA) in the same year, which was on science mastery as well, enlisted Indonesia as a country with a point of 403. In 2018, Indonesia's score for this matter even shrunk into 396. It caused Indonesia to rank seventieth in a group of 78. With all that in mind, this research was aimed at figuring out teachers' and students' perceptions of the socio-scientific issues (SSI)-based electronic student worksheets for improving scientific literacy and collaboration skills.

2 Methodology

This research was conducted in November 2019 on ten junior high schools, with a sample of 10 teachers and 100 students. The method applied in this research was a descriptive method in the form of a survey, which described what took place in the process of using the electronic student worksheets to improve students' literacy and collaboration skills. This research is

underlain by qualitative data obtained from a questionnaire. The data was analysed by way of manual scoring system. A ticked item means that the respondent agreed to the statement. The percentage of each item was calculated with the formula [7] and the criteria are presented according to [8].

Tabel 1. Percentage Interpretations of the Questionnaire.

Percentage	Criteria
80,1 - 100,0	Very High
60,1 - 80,0	High
40,1 - 60,0	Medium
20,1 - 40,0	Low
0,0 - 20,0	Very Low

3 Results and Discussion

The results of the data analysis in this research suggest that in general, the use of the electronic student worksheets in the learning activities was not yet applied, as seen in Table 2.

Table 2. The Teachers' Perceptions of the Socio-Scientific Issues (SSI)-based Electronic Student Worksheets.

No	Statements	Yes (%)	No (%)
1	The school has a computer lab	100	0
2	The school is facilitated with Wi-Fi/ Hotspot	60	40
3	Using media in the learning for better understanding	30	70
4	Using media in the learning to improve scientific literacy	10	90
5	Using teaching material for improving collaboration skills in the learning	40	60
6	Good students' responses to frequently used science teaching material (conventional student worksheets)	50	50
7	Using the socio-scientific issues (SSI)-based electronic student worksheets in the learning activities.	0	100
8	The socio-scientific issues (SSI)-based electronic student worksheets accompanied by questions directing students to scientific literacy skills	0	90
9	The socio-scientific issues (SSI)-based electronic student worksheets accompanied by questions directing collaboration skills	0	100
10	The need of the socio-scientific issues (SSI)-based electronic student worksheets in learning activities for improving scientific literacy	100	0
	Avarage	**39**	**61**

In reference to Table 2, in which the yes and no answers for each statement have a significant difference in between, the teachers did not use the socio-scientific issues (SSI)-based electronic student worksheets in the learning activities so that it can be categorized as "very low" and the percentage of directing students to scientific literacy skills is also still "very low", yet the percentage of directing students to collaboration skills is just "low".

Table 3. The Students' Perceptions of the Socio-Scientific Issues (SSI)-based Electronic Student Worksheets.

No	Statements	Yes (%)	No (%)
1	The teacher uses the computer lab for scientific learning	5	95
2	The school is facilitated with Wi-Fi/ Hotspot	60	40
3	Lecturing is the teacher's only method	50	50
4	The teacher relates the learning to the environment	60	40
5	The media used in the learning are only textbooks and student worksheets from the designated publishers	80	20
6	The media used in the learning give chances to investigation	40	60
7	Able to accept reasons and assumptions from friends	80	20
8	Agree to the learning using the socio-scientific issues (SSI)-based electronic student worksheets to train students' ability to put forward questions and argue	90	10
	Avarage	**58**	**42**

As shown in Table 3, there is a significant difference as well between the yes and no answers to each statement. Most students, with the category "Very High", answered "no" for the statement about the use of the computer lab for scientific learning, in this case, in terms of the use of electronic student worksheets. Their answers to this statement were in line with those of the teachers, who mostly answered "no", with the category "Very High", to the statement about using electronic student worksheets for scientific learning. The following is Table 4, which provides the information concerning the perceptions of collaboration skills.

Table 4. Perceptions of Collaboration Skills.

No	Statements (Teachers)	Yes %	No %	Statements (Students)	Yes %	No %
1	The strategies applied by the teacher can help students	50	50	The teacher has trained students to be engaged in social issue-based learning	50	50
2	The teacher has involved media to help students understand Science	80	20	The teacher has trained students to be engaged in problem solving with their friends	20	60
3	The teacher has trained students to work collaboratively	40	80	The teacher has given a questionnaire for measuring collaboration skills	0	100
4	The teacher has given a questionnaire for measuring collaboration skills	0	100			
	Average	**42**	**58**		**23**	**77**

In consideration of Table 4, it is safe to say that the teachers had never measured the students' collaboration skills. Table 4 also demonstrates that the teachers' perceptions of training students to work collaboratively still fell into the category "Medium", and it is in line with the students' perceptions that the teachers had trained them to work collaboratively, but had not trained them to be engaged in problem solving with their friends. The percentage is 60%. The following section contains the discussion of the previous findings in relevance to the results of this research.

3.1 Teachers' Perceptions of the Use of Electronic Student Worksheets in Improving Scientific Literacy

In consideration of the data in Table 2, it is plausible to infer that most schools have computer labs as learning facilities. Most of them are also equipped with Wi-Fi/ Hotspot for the sake of better learning in the labs. The use of computer labs as learning facilities potentially contributes to educational advancement a great deal in the globalization era. The involvement of digital technology plays an important role in supporting and improving learners' cognitive processes and thinking skills [9]. The learning involving technology is also able to change the learning atmosphere dominated by the teacher, or teacher-centered learning, with the method of lecturing into the learning atmosphere centering on students, or student-centered learning, so that it is effective in enhancing scientific literacy. The scientific literacy itself serves its role by affecting learners' decision-making, either personal or group decision-making [10]. The importance, besides decision-making, also concerns learners' intelligence quotients, creative thinking, problem solving, and high-order thinking skills. Yet, due to the demand that a teacher must give all the material to the learners within a designated period of time [11], teachers have to act as sources of learning. As for the learning media used by them, they are limited to textbooks and student worksheets from designated publishers, which mostly do not yet train learners' comprehension and scientific literacy skills, as shown in Table 2, with10% for the answers "yes" in a row. However, there were still a few teachers who had applied PowerPoint (PPT) in their teaching and learning activities, so the students' responses were quite good, with 50%.

The use of PPT as a medium in learning activities was actually a good start, but a a lot of teachers had not made use of electronic student worksheets as learning media. Referring to Table 2, only 10% of the answers were "yes" and 90%, the rest, were "no", so the use of electronic student worksheets was categorized into "Very Low" and as a result, the role of electronic student worksheets in enhancing scientific literacy had still been invisible. The data shown by the table implies that the teachers perceived electronic student worksheets as beneficial to the learning in terms of the improvement on scientific literacy, which would in turn increase the students' interest and improve their learning outcomes [12],[13].

3.2 Students' Perceptions of the Use of Electronic Student Worksheets in Improving Scientific Literacy

Not much different from the teachers' perceptions of the use of electronic student worksheets, the use of computer labs for scientific learning was just 5% and it was categorized as "very low". However, with regard to the teachers' teaching with the method of lecturing, the yes and no answers were equal in percentage, 50 %. It resulted from the fact that some teachers had put to the test learning models in learning activities. The models were called inquiry and discovery learning. The media used in the learning were textbooks and student worksheets from the designated publishers. However, a small number of teachers decided to create their own student worksheets. It is what the percentages of the yes and no answers imply, 80% belonged to the former, 20% to the latter. As a result, the students did not have any chances to investigate by themselves and be engaged in a discussion despite the fact that they were able to accept reasons and assumptions from their friends. This can be seen from the percentage of 90 for the yes answer and it fell into the very high category. Learning all that, it is known that 90% of the students were in agreement that the idea of using electronic student worksheets to improve scientific literacy should be put into practice.

3.3 Teachers' and Students' Perceptions of Collaboration Skills

Collaboration is more than just cooperation. It covers designing, working together, taking different perspectives into consideration, and taking part in a certain topic by making a contribution, listening to and supporting the others in figuring out the solutions to various problems in real life [14]. As shown by Table 4, the teachers had never measured the students' collaboration skills. Nevertheless, it can also be seen that the teachers had trained one of the collaboration skills, which was working together, but the process did not yet cover training them in their engagement in seeking prospective solutions on the basis of the existent social issues.

4 Conclusion

The conclusion drawn from this research is that teachers have not yet made use of the socio-scientific issues (SSI)-based electronic student worksheets in learning in order to improve scientific literacy (100%), teachers have not yet measured collaboration skills (100%), and teachers along with learners agree to the idea of making use of electronic student worksheets in learning as an effort to make improvements on scientific literacy (100%).

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Constraints of Teacher in The Process of Learning Geography Blind Students in SLB Bandar Lampung

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Abstract. This study aims to determine what obstacles are faced by teachers on implementing geography learning process for blind students in Bandarlampung and how to overcome these problems. The research was conducted at SLB Bina Insan Bandarlampung . The subjects in this study were teachers who taught geography. The method is descriptive qualitative. It is used to describe the obstacles faced by the teacher. The data was carried out through in-depth interviews, to obtain accurate information about the obstacles and what the efforts made to solve this problem. The results showed that there are several obstacles, i.e teachers have difficulty translating basic competency into several material indicators, difficulty choosing effective learning methods and strategies, difficulty making assessment instruments, lack of media, time in delivering material, and understanding the braille. The teacher's efforts are using tactile maps in learning, placing adjustment, hardening the voice, and using teaching methods.

Keywords: Blind students, geograpgy learning, teacher constraint

1 Introduction

In general, there are already articles that examine the problem of implementing learning in blind students in several subject areas [1],[2], but there is no article that examines the rigor of learning geography for blind students. Given the importance of geography as a subject that must be followes by students.

This research was made to examine what is related to the teacher in implementing learning for blind students. It is very important to see from this site so teachers can make appropriate efforts in implementing geography learning for blind students so that learning can be carried out effectively and efficiently.

In accordance, all human beings have various needs, invariably children with special needs. One of the fundamental needs is education. By providing education to children with special needs are expected to have the ability and skills for their survival so that it does not always depend on the help of others. The place for children with special needs in educational institutions means that some of their needs in getting an education. Through education, children with special needs are expected to be able to expand their horizons of life. So that children with special needs can think creatively, innovatively, and productively. Thus, children with special needs can compete and get the same rights in the job field. Blindness is a shortcoming of a visually impaired person, limiting the opportunities that the visually impaired have to get a fair education and career path. Even blind student still have the opportunity to get the same right as a normal student [3].

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In 2012, data from the Directorate of Special Education and Special Services of the Ministry of Education stated that in 2012, the number of children with special needs in Indonesia recorded reached, 1,544,184 children. Only 85,737 children (25.92 %) received formal education services, either in special schools (SLB) or inclusive schools. "That is, there are still 245,027 children with special needs (74.08 %) who have not received education in school [4].

The term special needs are explicitly addressed to children who are considered to have abnormalities/deviations from the average normal child's condition generally, in terms of physical, mental, and social behavior characteristics [5]. It can be concluded that the understanding of the blind is an individual who has suffered vision damage in such a way that he cannot use his sense of vision for educational or other purposes even though he has been helped by tools, so he needs special educational assistance or services.

Children with visual impairment can be known to be in the condition: (a). The sharpness of their vision is less than the sharpness that the normal children. (b). There is a noise in the lens of the eye or there is a certain liquid. (c). The position of the eye is difficult to control by the nerves of the brain. (d). There is damage to the nervous structure of the brain associated with vision[6]. Those who are categorized as children with physical needs include abnormalities in the visual senses (visually impaired) hearing sensory abnormalities (deaf) impaired speech (speech impaired) and impaired functioning of the limbs (physically disabled). A visually impaired child is a child who because of something experiences has a vision condition that does not work properly. The condition is caused by eye damage, optic nerve or part of the brain can't process visual stimulus. Based on preliminary research conducted by the authors, data on the condition of the grade 9th blind students at SLB A Bina Insani Bandar Lampung is presented in Table 1.

Table 1. Condition of Blind Students

No of Respondent	Gender	Causative factor	Description
1	Male	Birth blind	Total visually impaired
2	Female	Birth blind	Total visually impaired
3	Male	Birth blind	Total visually impaired
4	Female	Glaucoma	Total visually impaired
5	Male	Glaucoma	Partially visually impaired (low vision)
6	Male	Glaucoma	Partially visually impaired (low vision)

Source: SLB Document A Bina Insani Bandar Lampung, 2019

Based on table 1, student of XI grade at SLB A Bina Insani Bandar Lampung consists of 6 students with different blindness condition. The condition will also affect the ability of visually impaired students to understand learning. Blindness can make a limitation for children on their activity including for obtaining information. As stated by experts that approximately 85% of human observations are carried out by the eye [7]. This was conveyed by Utami [8], the limitations of visual/visual stimuli, causing visually impaired children to be less able to orient to their environment so that their mobility skills were impaired. The nature of dependence on others may occur in the visually impaired. This may be because they have not tried their best to overcome their difficulties so always expect the help of others.

Children with visual impairment can be known in the condition: (1) The sharpness of their vision is less than the sharpness that the alert person has. (2) There is a noise in the lens of the eye or there is a certain liquid. (3) The position of the eye is difficult to control by the nerves of the brain. (4) There is damage to the nervous structure of the brain related to vision [6]. The Government of Indonesia itself strives to facilitate the educational needs for special needs with

the establishment of extraordinary schools that have been spread throughout Indonesia. In its implementation, it is undeniable that teachers often experience problems in learning and need strategies in learning. Certainly in contrast to the constraints experienced by special education teachers. Special education teachers should have knowledge of children with special needs, patience, and good physical and mental health.

Learning for visually impaired children needs to pay attention to the following principles; (1) Individual Principles; This individual principle is a general principle in the implementation of learning in both context of special education and public education. Teachers are required to pay attention to individual differences students, (2) The Principles of Real Object (Sensing Experience); The learning strategy used by teachers should allow blind children to gain real experience of what they learn. This is also referred to as the "*direct sensing experience*, (3) The Principle of Totality; Learning strategy by teachers that enables students to gain a complete experience of objects and situations can occur if the teacher encourages students to engage all of their sensing experiences in an integrated way of understanding a concept, (4) The Principle of Self-Learning; Activities for visually impaired children should enable or encourage the child to learn actively and independently. Children learn to search and discover, while teachers are facilitators that help make it easier for students to learn and motivators that evoke their desire to learn.

Geography learning is one of the important and fundamental areas of study taught in both primary and secondary schools. This is because geography covers where humans live as well as the phenomena that occur. Any field of knowledge that a person learns always begins with observations on the face of the earth so geography is said to be the mother of science. Geography as a field of science has an explanation of a character as a result of the interaction of geographic factors that characterize the places on the surface of the earth as human dwellings, including the utilization of natural resources and the environment for the benefit of life. Geography has the object of earth's surface study with a relationship of space, so it has a strong position in providing knowledge to a set of people in studying various aspects of life on earth. The description of materials and subjects needs to be adapted to the child's abilities, age, methods, and mental development. This is so that the material in the material can be easily accepted.

Nursid [9] stated that geography learning is essentially a study of aspects of the earth's surface that are the overall symptoms of nature and human life with regional variance. Therefore geography learning in schools is a study of the nature of geography that includes aspects of space, environment, and spatial. The object of geography study is a geosphere consist of an atmosphere, lithosphere, hydrosphere, and biosphere that is adjusted to the level of psychological development of students at the educational levels.

Based on Permendiknas number 22, 2006 [10] on the standard of content, the geography learning in the school aims to have students that have the ability (1) spatial, environmental, and territorial patterns and related processes, (2) master basic skills in obtaining data and information, communicating and applying geographic knowledge, (3) display caring behavior towards the environment and utilizing natural resources wisely and have a tolerance to the cultural diversity of society [6].

Learning is a process organized by teachers and taught students in learning how to acquire and process knowledge, skills, and attitudes [11]. But every profession must have its problems, including teachers. In the Great Dictionary of Indonesian Language, obstacles are an obstacle; obstacles; Constraints. Teacher constraints are obstacles or obstacles experienced by someone who is a teacher. In this case, the obstacles that will be reviewed are the constraints that occur in the learning process. Obstacles in learning are some of the obstacles that hinder the course of

learning seen from human factors (teachers and learners), institutional factors (classrooms), and instructional (lack of props) [12].

There need to be adjustments to a person with visual impairment or a visually impaired child who has its peculiarities and ways to achieve the same stage in its development, including in the field of education. In treating and serving children low vision is to use teaching principles namely lighting, color contrast, font size, time, teaching methods that have been specifically designed in learning [13].

For geography subjects of SLB A Bina Insani, students are taught by a geography graduate teacher, but the teacher has never attended an additional competency course to strengthen the competency of educating children with special needs. This becomes an obstacle for geography teachers in delivering learning effectively to students. while teachers are supposed to be good facilitators in the learning of visually impaired students.

2 Method

The research method used in this study is a descriptive qualitative method. Qualitative descriptive aims to describe phenomena as they are, more characteristics, quality of interconnectedness between activities [14]. The qualitative descriptive research method used in this study aims to illustrate the constraints that teachers face in carrying out the process of geography learning.

The subject in this study was geography teacher class XI at SLB A Bina Insani Bandar Lampung School Year 2019/2020, while the object of this research was the teacher constraints that teachers faced in carrying out the geography learning process in Blind Students, Grade XI at SLB A Bina Insani Bandar Lampung.

The researcher chose the school because the teacher who taught geography was a graduate of geography education who had never received any training and knowledge about how to teach students with special needs with visual impairments. Also, research locations that are close and easily accessible are a consideration in determining the research location.

Research data collection was carried out through in-depth interviews, namely through the process of obtaining information for research purposes through face-to-face question and answer between the interviewer and the respondent, with or without using interview guidelines where the interviewer and informant are involved in a relatively long social life.

This interview was conducted to get accurate information about the obstacles faced by teachers as well as efforts made in carrying out the process of geography learning in Blind Students Grade XI at SLB A Bina Insani Bandar Lampung. The data analysis technique used in this study is a descriptive data analysis technique, without using the statistical formulas.

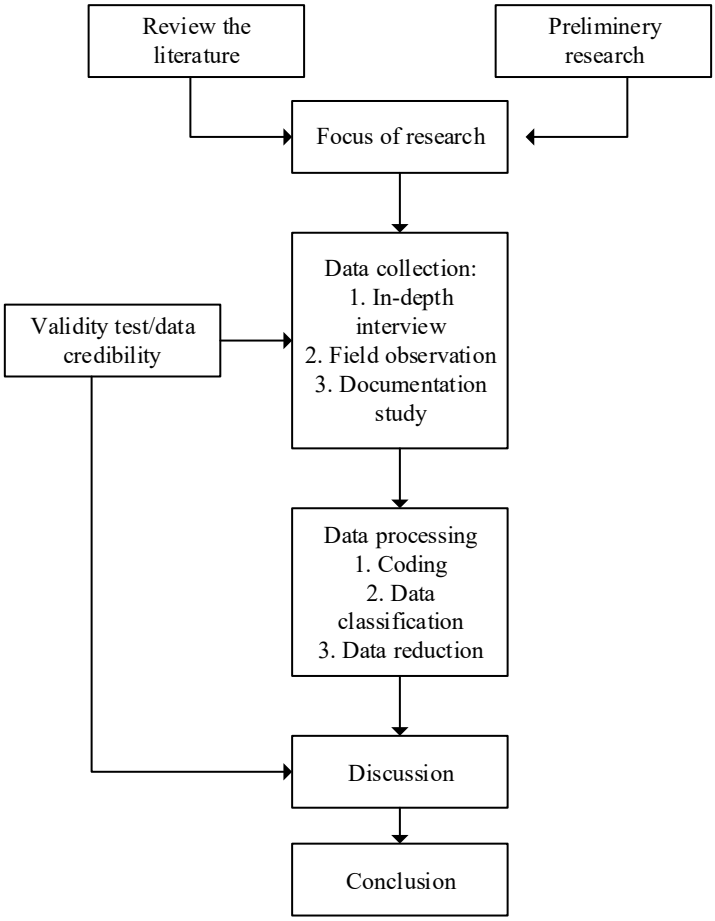

Fig. 1. Research flow chart

3 Result and Discussions

3.1 Teacher Constraints

Education is one of the government programs that must be implemented to achieve the goals that have been announced. Educating children with physical, mental, or social behavioral characteristics is not the same as educating a normal child, because in addition to requiring a special approach also requires strategy and special learning tools. There are important obstacles in the learning process of students, for example, the lack of special materials and equipment for the visually impaired [15]. This is sole because it relies on the condition experienced by different children. Therefore, based on observations and interviews of researchers with teachers who teach geography subjects are informed that the number of students of SLB A Bina Insani as many as 6 people and there are some obstacles faced during the study.

Teachers have difficulty describing KD into several material indicators. The syllabus used is the syllabus created by the government. There is no specific difference in the syllabus for SLB and public schools. The syllabus contains core competencies. The core competency is then passed down in the basic competence as well as indicators. In this case, teachers are required to be able to lower KI and KD into appropriate learning indicators, judging by KI and KD which are then adapted to the student code. The achievement of the level of thinking made by teachers should be simpler so that students can achieve learning indicators with limited conditions without any difficulties.

Difficulty choosing effective learning methods and strategies. Based on the results of the study, the purpose of geography learning formulated by SLB A Bina Insani is somewhat different from other schools. It is adapted to different child conditions with the child in general. The level of thinking set is slightly lower. But for the material, the researchers found no material difference between SLB A Bina Insani and public schools. This makes teachers work harder in learning so that students can achieve established learning indicators and objectives. Teachers find it difficult to determine effective strategies due to the teacher's lack of experience in dealing with special needs students. Teachers have never undergone training in the face of special needs students in the classroom. It is also suggested by previous research, that teachers complain of a lack of competence in handling special needs students, this is due to the lack of understanding of teachers about special needs students which then impacts the problems that arise. Furthermore, teachers have difficulty in teaching and learning activities. Also supported by the fact that teachers who have an inappropriate educational background [16].

Lack of Media. With the implementation of learning for visually impaired students, there are no media specifically reserved for special needs students. The media used when the teacher explains is the same as other students. Only tactual maps have schools as a medium of geography learning. Teachers have difficulty finding suitable media to convey abstract and concrete concepts, for example when explaining about seabed morphology, mining, food security, and others. In general, geography teachers only use video to support learning.

Teachers have difficulty making assessment instruments. The learning evaluation standard for the special needs children follows the Minimum Completed Criteria set by the school of 70. The evaluation question given to the Special needs is adjusted to the indicator stimulated by the school. Based on interviews with geography teachers, teachers have difficulty developing process assessment instruments and learning outcomes that include cognitive, affective, and psychomotor performance.

Lack of Time in Delivering Materials. The teacher is unable to convey all the material contained in the book because there is not enough time to explain the entire material. The ability between visually impaired students and normal learners is certainly different, explaining material to SPECIAL NEEDS students take more time for the material to be conveyed clearly. Besides, blind learners also need more time in understanding the subject matter. Moreover, books used in learning are not books specifically for visually impaired students and the media available is less. All children, including visually impaired children, have developed potential, although, in reading and writing learning, blind children sometimes have to take a bit longer compared to children in general. This is due to the limitations experienced by them. Therefore, a blind child teacher is also required to be patient, conscientious, and creative, and willing to be a substitute for the eyes of visually impaired students [17].

Teachers Lack Understanding Of Braille. Braille is used by visually impaired students for studying the subject matter. Reading and writing Braille is one of the tools for people with blind visual disabilities to obtain information and communicate with others who use tactile nerve. Thus the sensitivity of tactile nerve is a demand in having braille reading and writing proficiency. Geography teachers, meanwhile, lack using the braille media. This certainly inhibits learning, because braille is the only letter that can be mastered by visually impaired students. This lack of understanding leads to constraints in the learning process and evaluation. The lack of understanding of Braille by teachers is because teachers have never participated in training for learning Braille and practice it. This was also conveyed by Dwi [18]. Another obstacle faced by the classroom teacher is the limitations of the classroom teacher about reading brailed and mobility orientation so the classroom teacher has not been able to guide the child to the maximum

3.2 Teacher's Efforts to Overcome Obstacles

Use of Taktual Maps. Based on the results of interviews and observations of geography teachers always use tactual maps in geography learning. For example, materials that can use tactual maps are the spread of flora and fauna, the spread of mining goods and other materials. The use of tactual maps as a medium can be more easily understood by visually impaired students through the senses of touch so that students can imagine the face of the earth. Tactical maps produce an accessible means of touch (tactual) to know the distribution and relationship of various geographic phenomena and effectively to transmit room information to the visually impaired, thus benefiting in unhelpful mobility, as well as for the increasing use of the relationship of a phenomenon that is still abstract. Tactual maps have *a Tactile sensation that* is a sensation that is felt when the skin experiences direct contact with objects (such as vibration, pulse, pressure, temperature, size, shape, texture, direction, and height), used to recognize space [19].

The potential of the visual blind *in this tactile sensation* brings up to a tactual perception that is realized using tactual variables in tactual mapping to distinguish the elements represented on each symbol on the map. The goal is to elicit a specific mental or thought response after being poisoned.

Place Adjustment Principles. In addition to interviews, the researchers observed that the principle was applied by geography teachers. The principle is used in learning by placing the SPECIAL NEEDS in a position close to the board and teachers so that the SPECIAL NEEDS can be helped a little while reading the writing on the board and hear the teacher's voice. Visually impaired students rely entirely on visual learning, they are easier to capture material by sharpening hearing.

Hardening Principles. Based on the observation of the use of the principle has been applied by geography teachers in learning. The teacher speaks his voice at maximum volume at the time of the material member and writes on the board. This is very helpful for visually impaired students because clear sounds will be able to be captured through the listener's senses.

Principles of Use of Teaching Methods. Based on interviews on the principle of using varied methods during learning to grade XI SLB students. Geography teachers often apply discussion methods, Q&A, and lectures to help students understand the materials they have been taught.

This is a form of use of varied methods given by teachers so that students do not feel bored. Only such methods are considered effective in delivering geography subject matter to ABL students. The implementation of learning activities is the main thing and determinant of the running of professionalism of a teacher in teaching. A teacher is not only charged with preparing materials but must also be prepared in all things, namely being able to make learning conditions more alive, not boring, on the other hand, students are also better prepared and should not let any lessons slip[20].

4 Conclusion

Based on the results, there are several obstacles faced by teachers in implementing geography learning for blind students at SLB A Bina Insani. Teachers have difficulty translating basic competence into several material indicators, difficulty choosing effective learning methods and strategies, and making assessment instruments, lack of media, lack of time in delivering material, and teachers do not understand the braille.

When associated with the existing theory, constraints in learning are some obstacles that hinder the course of learning as seen from human factors (teachers and students), then the factors that become obstacles for teachers in implementing geography learning for blind students at SLB A Bina Insani Bandarlampung are constrained by human factors (teachers and students) and instructional (lack of teaching aids). For the efforts made by the teacher, namely by treating and serving low vision children using teaching.

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Need Assessment of Socioscientific Issues-Based (SSI) on the Scientific Literacy Assessment Instrument towards the Environmental Pollution Topic

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Abstract. This study aims to analyze the needs of Socioscientific Issues (SSI) based scientific literacy assessment instruments on environmental pollution topic. The method used in this study is a survey method. The subjects in this study consisted of one hundred seventh grade students and thirty science teachers from ten public and private junior high schools in the cities of Bandar Lampung and Metro. The data collection technique was carried out using a questionnaire and a test of students' scientific literacy skills to determine whether or not SSI-based scientific literacy assessment instruments were needed on environmental pollution material. The results showed that, (1) 73% of teachers had not yet assessed students' scientific literacy skills; (2) 87% of teachers had never given SSI-based questions on environmental pollution material to measure students' scientific literacy skills; (3) 80% of students felt that the teacher had never given SSI-based scientific literacy questions to environmental pollution material; (4) as much as 100% of teachers expect that there is a need to develop an SSI-based science literacy assessment instrument on environmental pollution topic; (5) and the students' scores are still below the average target score of the 2015 PISA assessment which shows the need for the development of an SSI-based science literacy assessment instrument on environmental pollution topic.

Keywords: Socioscientific Issues, Scientific Literacy, environmental pollution.

1 Introduction

Science education must be developed in accordance with the characteristics and functions through the steps and the learning process that refers to the ability of the 21st century. Specifically in the ability of the 21st century, students must engage in higher-order thinking carried out with active learning that is closely related to solving real world problems related to nature [1]. One of the abilities needed by the 21st century to solve real-world problems based on the mastery of scientific understanding is scientific literacy [2]. This ability has become the topic of much discussion as an ability that can participate in solving real-world problems through understanding science and technology based on mastery of mathematics, physics, chemistry, biology, and the environment [3].

Science literacy is defined as the ability to use scientific knowledge to explain and predict natural phenomena in order to overcome natural problems through scientific methods [4]. The ability of scientific literacy is the ability to live in an era where scientific knowledge is the foundation of everyday life [5]. With the ability of scientific literacy, students will get used to using science concepts in making everyday decisions through process skills by understanding

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the relationships between science, technology and society, social development and producing useful scientific products [6]. Educating students to have scientific literacy is a major goal in every science education reform [7]. Based on this, the scientific literacy ability needs to be trained and developed in students in the science learning process, looking at the importance of thinking and acting skills that involve mastering thinking and using scientific thinking in recognizing and responding to social issues [8].

In fact, until now the ability of scientific literacy skills has not been programmed by the teachers in schools. This is reinforced by the results of the Study for International Student Assessment (PISA) study which shows that Indonesian students were ranked 60 out of 65 countries in 2009, ranked 64 out of 65 countries in 2012, and the most recent PISA results namely in 2015 Indonesian students received ranked 69 out of 79 countries [4]. The low achievement of students' science is because the problems contained in PISA require higher-order thinking skills by solving real problems in daily life. Indonesian students only master questions that are routine, simple computing, and measure knowledge of everyday contextual facts. In addition, the teaching and learning process carried out is still oriented to the mastery of science concepts alone [9]. So, it is necessary to strengthen students' scientific abilities in using science knowledge [4] which can be trained with scientific literacy skills [9].

One approach to learning that can train and develop students' scientific literacy skills is by learning based on socio scientific issues (SSI). SSI become important in science education because they occupy a central role in increasing scientific literacy [10]. SSI can be defined as an issue that describes social problems in society related to the conceptual, procedural, or technological context of science [11]. SSI provides contextual learning situations that have the opportunity for the development of argumentative scientific skills, exploration of moral issues, the development of moral reasoning and reflective judgment abilities [12] so students are able to make decisions on problems that exist in their social environment in a scientific and socially valuable manner.

Besides the need for the use of SSI-based learning that can develop students 'scientific literacy skills, the use of measuring instruments/tests is one of the important things in practicing students' scientific literacy abilities. Currently the measuring tools/tests used are still focused on questions that have not measured the scientific literacy skills of students and are not based on SSI. Even though one way to find out whether students already have the ability of scientific literacy is to do an assessment. The assessment is used to conduct an evaluation, namely as a measuring tool that compares something with one measure and to judge by making decisions on something with good and bad measures [13].

Assessment is a process or activity that is continuous and systematic to collect information about the process and learning outcomes of students in order to make decisions based on certain criteria and scales [14]. Assessment is an important part in the learning process because of the assessment process the teacher can obtain a portrait or profile of students' abilities in achieving basic competencies [15]. Assessment of scientific literacy skills can be carried out by providing instruments in the form of multiple choice test questions and descriptions to students who each question must pay attention to four major aspects according to PISA, namely aspects of context, knowledge, competence, and attitude [4].

Aspects of the context of scientific literacy include personal, local / national, and global issues both now and in the past. The aspect of knowledge in scientific literacy is explained as an understanding of the main facts, concepts, and explanatory theories that form the basis of scientific knowledge. The competency aspect is understood as the ability to explain phenomena scientifically, evaluate and design scientific investigations, and interpret data and evidence

scientifically. Furthermore, the attitude domain is explained as the attitude towards science which is shown by the students' interest in science and technology [4].

The context aspect is needed to support the competency domain while the competency domain is influenced by the attitude and knowledge domain. Based on this, in assessing the ability of scientific literacy, the questions on the test instrument only focus on the domain competency indicator that explains scientific phenomena, evaluates and designs scientific questions, and interprets scientific data and evidence [4].

In addition to paying attention to the aspect of scientific literacy, test questions used in conducting assessments must be designed with SSI-based questions. SSI is important in the field of science education because it can be used as a tool to increase the ability of scientific literacy [16]. SSI-based test questions must include questions that can: (1) present the issue from the standpoint of science knowledge, (2) evaluate the social science issues presented; (3) assess local, national and global impacts, and (4) make decisions related to social science issues [17], where the four stages of the SSI are believed to be able to measure students' scientific literacy abilities. By encouraging the involvement of large learners through social problems that are relevant and rooted in scientific disciplines, SSI has demonstrated its potential for problem solving and the acquisition of scientific content [18].

Several studies have been carried out in an effort to develop an instrument of scientific literacy ability assessment which will be the basis of research for the use of SSI-based scientific literacy assessment instruments on environmental pollution material. Environmental pollution topic is used because it is a suitable material based on SSI. This research was conducted for science teachers and junior high school students aimed at analyzing the needs of SSI-based science literacy assessment instruments on environmental pollution topic in the learning process.

2 Method

The method used in this study is a survey method. The subjects of this study were one hundred seventh grade junior high school students and thirty science teachers from ten public and private junior high schools in the cities of Bandar Lampung and Metro. Data collection was carried out using a questionnaire technique on the need for an SSI-based science literacy assessment instrument on environmental pollution material and an analysis technique for early scientific literacy skills of junior high school students given through students' scientific literacy ability tests of PISA questions. Next, the data obtained from the responses of teachers and students were analyzed using the following formula:

$$\% J_i = \frac{\sum J_i}{\sum N} x\ 100\% \quad (1)$$

Where %*Ji* is the percentage of choice of answer *i*, $\sum Ji$ is the number of respondents who answered answer *i*, and $\sum N$ is the total number of respondents.

The technique of analyzing the students 'initial ability in scientific literacy test is done by calculating the students' answers on each item of scientific literacy indicator test using the following formula:

$$\% X_{in} = \frac{\sum S}{Smaks} x\ 100\% \quad (2)$$

Where $\%X_{in}$ is the percentage of answers to the PISA literacy questions, $\sum S$ is the total answer score and Smaks is the maximum expected score. Then the results of the analysis of the percentage of answer scores are interpreted based on the item scoring at PISA 2015.

3 Result and Discussion

Based on the results of the questionnaire, where 78% of students find it difficult to answer questions relating to explaining phenomena scientifically, 86% of students find it difficult to answer questions relating to evaluating and designing scientific investigations, and 78% of students feel difficulty in answering questions related to interpreting data and scientific evidence. The results of the questionnaire analysis concluded that the difficulty of students in answering questions related to scientific phenomena, evaluating and designing scientific investigations, and interpreting data and scientific evidence due to the lack of students' habits in answering questions involving SSI so that the scientific literacy of students is less trained. This is reinforced from the data of 80% of students feel the teacher has never given SSI-based scientific literacy questions on environmental pollution material.

Tabel 1. Percentage of Students Recapitulation Questionnaire Analysis of Development of SSI-Based Science Literacy Assessment Instrument Needs on the Topic of Environmental Pollution.

Questions	Student's Response	
	Yes	No
Students find difficulty in understanding science topics	66%	34%
Students do learning by using socioscientific issues (SSI)	24%	76%
The teacher helps in increasing students' scientific literacy skills	40%	60%
The teacher has given science material questions related to science literacy and SSI	34%	66%
Students have difficulty answering questions related to explaining the phenomenon scientifically	78%	22%
Students have difficulty answering questions related to evaluating and designing scientific investigations	86%	14%
Students have difficulty answering questions related to interpreting data and scientific evidence	78%	22%
The teacher gives SSI-based science literacy questions	22%	78%
The teacher gives SSI-based science literacy questions on environmental pollution material	20%	80%

The results of the needs questionnaire analysis also showed that 73% of teachers had not yet conducted an assessment of environmental pollution material that measured students' scientific literacy skills and as many as 87% of teachers stated that the assessment instruments used in the classroom on environmental pollution material had not displayed phenomena based on issues so social science can not measure the scientific literacy ability of students. Moreover, 100% of teachers expect the development of SSI-based science literacy assessment instruments on environmental pollution material. Development of an SSI-based science literacy assessment instrument is expected to be in the form of questions that can (1) present the issue from the standpoint of scientific knowledge/scientific background; (2) evaluating the social science issues presented/evaluation of information; (3) assess local, national and global impacts/local, national, and global dimension; (4) as well as making decisions related to social science issues/decision making [17], where SSI is important in the field of science education because it can be used as a tool to increase the ability of scientific literacy [19].

Tabel 2. Percentage of Teachers Recapitulation Questionnaire Analysis of Development of SSI-Based Science Literacy Assessment Instrument Needs on the Topic of Environmental Pollution.

Questions	Teacher's Respon	
	Yes	No
The teacher knows learning based on SSI	27%	73%
The teacher used SSI based learning in science learning	27%	73%
The teacher knows about the ability of scientific literacy	77%	23%
The teacher has practiced the science literacy skills of students	43%	57%
Students' scientific literacy skills need to be assessed	73%	27%
The teacher has conducted an assessment of students' scientific literacy skills	27%	73%
The scientific literacy skills of students are as expected	20%	80%
The teacher has conducted an assessment of environmental pollution topic that measures the ability of students' scientific literacy	27%	73%
The teacher once gave SSI-based questions on environmental pollution topic to measure students' scientific literacy skills	13%	87%
The development of SSI-based science literacy assessment instruments for environmental pollution is needed	100%	0%

While based on the results of the analysis of students' scientific literacy ability tests given to one hundred students, it shows that the three indicators of scientific literacy in the aspects of competence which include explaining phenomena scientifically, evaluating and designing scientific investigations, and interpreting data and scientific evidence are still below average. the average PISA assessment target score of 2015. On the indicators explaining the phenomenon scientifically obtained a score of 33.20% where the target score of the 2015 PISA assessment is 40% -50%. Indicators evaluating and designing scientific investigations obtained a score of 15.40% with a 2015 PISA assessment score target of 20% -30% and an indicator interpreting data and scientific evidence obtained a score of 23.40% where the 2015 PISA assessment score target of 30% -40%.

Tabel 3. Percentage score of initial ability of scientific literacy of students

Indicators of Science Literacy Competence	Percentage	
	Student Score	PISA 2015 Target Score
Explain Phenomena Scientifically	33,20%	40-50%
Evaluate and design scientific investigations	15,40%	20-30%
Interpret data and scientific evidence	23,40%	30-40%

The low test results of scientific literacy skills of students due to test questions that are often given can not measure the scientific literacy skills of students. The test questions given do not refer to the questions that present phenomena based on sociocultural issues and are only in the form of test questions that are routine, simple computing, and only measure knowledge and facts that have a daily context. SSI-based science literacy assessment instruments in the form of phenomena, images, and articles that can develop students' scientific literacy [20]. Through SSI, issues or problems in social life that are conceptually closely related to science can find relative answer solutions so as to stimulate intellectual, moral and ethical development, and awareness of the relationship between science and social life [21] which can directly measure and develop students' scientific literacy skills.

4 Conclusion

The results of this study will be used as a basis for developing a scientific literacy assessment instrument based on socioscientific issues (SSI) on environmental pollution material. As many as 100% of teachers stated that they needed to develop an SSI-based science literacy assessment instrument on environmental pollution material. The teacher hopes that the assessment instruments developed later can measure students' scientific literacy abilities which include indicators explaining phenomena scientifically, evaluating and designing scientific investigations, and interpreting data and scientific evidence obtained from (1) presenting issues from the standpoint of scientific knowledge/scientific background; (2) evaluating the social science issues presented/evaluation of information; (3) assess local, national and global impacts/local, national, and global dimension; (4) and make decisions related to social science issues/decision making.

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Le tour de culture: Innovation of Snake Ladder Game Based on Computer and Android for Indonesian and French Intercultural Learning

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Abstract. In the new era of education, the learning process cannot be done just face to face and using outdated and outdated media and strategies. It takes media innovation and online and offline learning strategies. The strategy in question is the edutainment concept, which is the integration of entertainment in the learning process to create an entertaining and enjoyable atmosphere. In addition to strategy, technology-based learning media has an important role in improving the quality of education. This article describes the results of development research to create computer and android based game innovations that are used in intercultural learning between Indonesian and French. The method used is research and development which includes (1) game media needs analysis, (2) game development for intercultural learning (3) game validation. The product made is Le Tour de Culture, which adopts the snake and ladder game, and is compatible with computers and androids. There are twenty-five game squares in the game. Fifty Indonesian and French cultural products including landmarks, specialties, transportation systems, are loaded with visualized images and explanations. The legibility test results showed that the validators and respondents easily understood the game with an average score of 80%. Based on the explanation that has been done, the computer-based snake and ladder game, android mobile media for intercultural learning are declared valid, and this game has very good qualifications.

Keywords: Android game, Culture, Edutainment, Innovation, Intercultural

1 Introduction

Technology and information that are growing rapidly have had positive influences for education. The use of sophisticated technology can provide benefits to support learning. This influence is clearly seen in the renewal of the education system and the development of learning media. Technology can be used to support learning, including foreign language teaching and learning. The technology-enhanced language learning strategies reviewed demonstrate the specifics of what learners and teachers do with technologies in Digital Age, how they embed language learning strategies into games, online platforms, and apps. Normalization of technology in language classrooms and the multi-faceted aspects of language learning technologies have altered traditional language learning and teaching approaches. Learning strategy instruction should be integrated into the curriculum of technology-enhanced language learning [1]

The new and interesting media is considered important in enhancing the learning process. Game is a contest between players who interact with each other by following certain rules to achieve certain goals. Selection of appropriate media must be considered so that the needs and

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objectives of learning [2]. Furthermore, we will discuss the selection of alternative media for intercultural learning, specifically Indonesian and French intercultural learning.

Learning French as foreign language involves two different languages: Indonesian and French, so automatically learners are in two different cultural contexts, in intercultural context. The intercultural concept fits into a larger field, including culture. It heirs to civilization. The didacticians made a point of bringing culture into the classroom, which generated vast questions relating to cultures in contact, namely interculturality. [3]

Many differences between Indonesian and French culture make learners often in a confused situation. Therefore, intercultural understanding is needed in the learner side. French learners not only learn and understand French culture but are also expected to have a sensitive attitude towards French culture without leaving or forgetting their own culture, to develop empathy and tolerance for existing differences in order to create a conducive situation and ultimately create peace between nations and cultures. There are cases where Indonesians who learn French will be carried away by French customs and culture, such as kissing the cheek of a person of the opposite sex when they meet. This is a taboo and is not practiced in Indonesia, where kissing on the cheek is usually just between women. There are three attitudes formed in learners when they get this knowledge: 1) those who reject this culture because they think it is taboo and not in accordance with Indonesian culture, 2) those who accept and are carried away by the situation so that they apply it; 3) Those who accept this foreign culture and respect it, and think that every nation has its own culture. Developing an understanding across cultures often means interacting with others in their language rather than one's own, and learning how to do these things necessitates learning strategies. [4]

The findings of Deneme et al research showed that the students learn foreign culture through their parents, family members and relatives, television programs, computers, friends, school, real life experiences, books, newspapers, magazines, games and songs. Their study confirmed that television, family and computers were the most effective factors in children's foreign culture acquisition. Family takes up a crucial part of a child's learning process since the first practice of actual education of the child comes from parents. Games and the computer technology can also be important in learning culture. [5] That's why Setiawan et al tried to develop an application based on Android for learning Indonesian culture, named Indonesia National Culture Application. Through the use of mobile learning, user can access learning content without any borders so that it can be accessed at any time so that it can be accessed at any time with interesting illustration. This application is made useful to help users in learning the introduction of Indonesian culture that provides the knowledge with illustrations in the form of images, audio, text and video. It also can be functioned for learning, answering quiz, viewing a gallery of images and video and doing puzzle games. [6]

According to Kovacs, more emphasis should be placed on the practical aspects of dealing with cultural content in the classroom. Such activities may involve the selection and use of authentic materials for example, television shows, news broadcasts, films, the use of different websites or printed materials such as travel brochures, photographs, newspapers, magazines, restaurant menus. [7]

Regarding Indonesian and French intercultural learning media, there are some results of previous research associated with alternative media in this learning. Intercultural learning can be realized through the use of authentic documents because this type of document contains a variety of real and actual cultural information. Authentic documents such as songs, advertisements, films and newspapers are effective and tangible media if you want to learn culture. [8] There was also a research using children's folklore song as a medium for character

education and intercultural learning. Some children's folk songs from Central Java are translated so that French learners can be able to learn languages and also Indonesian and French cultures at the same times. [9]

The two studies in the field of intercultural learning are complemented by a third study that applied project-based learning to translate children's songs as an effort to preserve conservation values, especially the conservation of moral values. Some Indonesian children songs have been used in intercultural learning and attracted student's interest in studying Indonesian and French cultures. [10]

Beside authentic documents and songs, there is still other alternative media that can be used to attract learning interest, one of which is the game. Games are commonly used as learning media. As a learning media, games serve to arouse students' curiosity, offering them stimulating learning situations so as to foster a desire and pleasure to learn. [11]

Meanwhile, there also another definition of games, which are a voluntary activity, obviously separate from real life, creating an imaginary world that may or may not have any relation to real life and that absorbs the player's full attention. Games are played out within a specific time and place, are played according to established rules and create social groups out of their players. Games in general and video games in parti cular, are now in process of proving their effectiveness as tools of training and teaching. Gradually, the acceptance of games as another educational tool is growing. [12]

As a medium of education, games have the following advantages: 1) it is fun to do and it is entertaining, 2) it allows an active participation of students to learn, 3) it can provide immediate feedback, 4) it allows application of concepts or roles to the actual situation and role in society, 5) it is flexible, 6) it can be easily made and reproduced. [2]

The boom in educational games and CDs waned as the Internet became the focus, and the category of educational games and software evolved into what is known as "edutainment". [12]

The application of edutainment has been carried out by Abdalla. He investigated the usage of edutainment specially films and games in vocabulary learning for some intermediate students. His study tried to find out whether the usage of edutainment, games and films, can facilitate the learning of English vocabulary or not. Doing the experimental design, the result showed that experimental group improved significantly as a result of introducing edutainment in the classroom. [13]

The field of games, including in foreign language learning offers a wide range of pedagogical possibilities to be exploited and developed within the next few years. Their use in the classroom could enhance learners 'motivation towards learning foreign languages. The development and use of video-games becomes the impact of technological developments and the implementation of a digital game-based approach in education. And also, the use of mobile phones, tablets and portable computers allow that students may have both individualized as well as cooperative learning either in the classroom or at home. [14]

As an educational tool, computers games bring a lot of enrichment. This digital gaming has been classified in the paradigm of language education: as a teaching technique, an experiential tool for learning, or as a remedial activity for underachievers. Therefore, language teachers could easily wonder why he or she has to strive to become an educator, to look for appropriate video games, to overcome technical difficulties. They should know how to harness the educational prerogatives of digital games. They should be taught the advantages of ludic language teaching, the assessment and choice of suitable games, the organization, administration, and evaluation of gaming activities. [15]

The development and application of digital games in language learning has been carried out. Loiseau, Zampa and Rebourgeon seek to produce fun resources for teaching and learning

languages, to support teachers in getting started with games and to work on why and how to integrate the game into language teaching and learning. They have developed *Magic Word,* the game of the batch, a derivative of the Boggle, which has been implemented in two languages: English and Italian. The idea is to find as many words as possible in the grid. [16]

Alyaz and Genc have conducted a study to investigate educational digital games in foreign language teaching, to identify the determining reasons behind the pitfalls in applications and to explore the contribution of a serious game to the development of professional language skills of pre-service teachers. There was a contribution of the game to the development of teacher's language skills. There was great improvement in pre-service teachers' professional language skills and attitudes towards using these games while teaching in the future. [17]

Lorenzet and Piazza revealed the benefit of using digital games. Digital games can favour vocabulary development in a FL. It has been shown that digital technologies have immense potential to support learning, and digital games, specially, may work as an effective educational tool. Digital games may represent the first contact children have with electronic devices. Furthermore, digital games can promote countless benefits for foreign language learning. [18]

The advantages of educational games in the affective domain, the educational game is extremely promising, as it allows one to explore with a certain lightness roles including that of partner, leader and adversary. In terms of cognitive benefits, play can reinforce the work of classification, ordination and relationship finding. [19]

Regarding the preparation and development of educational games in the edutainment strategy, Aldric as cited by Michael and Chen offers several criteria that must be considered in the preparation of game scenarios: 1) must be authentic and relevant; 2) should tap into emotions and forcing students to act; 3) provide a sense of unrestricted options; 4) should be replayable. [12]

Educational games are an activity that is very fun and can be an educational way or tool. Several educational game tools, namely, building blocks, lotto, puzzles, peg boards, counting boards, nail boards, seeds / beads for jigsaw, checkers, chess, snakes and ladders. the advantages of educational games, which can improve: a) understanding of the totality of independence, b) educational skills, c) creating new things, d) children's thinking skills, e) sharpens children's feelings, f) strengthens children's self-confidence, g) stimulates children's imagination, h)children's language skills, i) trains children's fine and gross motor skills, j) stimulates children's morality, k) stimulates children's skills, l) develops socialization of children, m) forming children's spirituality. [20]

One type of educational game that can be developed is the snake and ladder game. This type of game was developed because this game is quite familiar and easy to play. Snake and ladder is a game that uses dice to determine how many steps taken. Usually, the board has a grid of 10 rows and 10 columns with numbers 1-100, image of snake and ladder. [21] Snake and ladder is a board game and classic game. Its main attraction is some parts of the board represented by ladders and snakes, it needs a dice in order to play the game and take the turns and the board is numbered from 1 to 100 according to the total cells in the board. [22]

This game is usually played manually. However, along with the development of technology, the snake and ladder game can be made with an application, namely Adobe Animate. This game allows it to be applied in various fields, one of which is in learning French language and culture. And it can be applied both in Android and personal Computer.

The use of snakes and ladders as a learning medium is nothing new. Fitriana and Maro tried to apply snake and ladder board game for teaching vocabulary in the tenth grade of SMA Muhammadiyah 1 Malang. The aim of their study was to find out whether snake and ladder board game could improve students' vocabulary mastery or not. The result was shown that snake

and ladder board game could improve students' vocabulary mastery due to the score of pre-test in control group was higher than the pre-test score of experimental group. Otherwise, the post-test score of experimental group was higher than the control group. Accordingly, related to the result of this experimental research, the researcher concludes that snake and ladder board game can improve students' vocabulary mastery in the first year students of senior high school. [23]

In the article of Arfani and Sulistia, snake and ladder board game were used in English class of a private schools in Jakarta. The objective of this research is to know how the implementation of speaking using a snake and ladder board game to the students in English class of a private school in Jakarta. The data of the research included on-site-observation and recording. The result of the research shows that games can improve the students' speaking proficiency and the atmosphere of teaching and learning process becomes more alive. Besides those result findings, there is also the result finding on the teacher behaviour that is she knows another media in teaching speaking. The use of games helps the students to comprehend the vocabulary and grammar. Finally, they can use the vocabulary, grammar and the expression in real communication. Games can make the students think intensively and concentrate in learning process. By so doing, they will able to express their idea, think naturally. And Games increase creativity and courage; they have more discussion with their friends. It also increases their enthusiasts to ask the teacher about their difficulties. [24]

Another article written by Schmoll tried to reveal the use of games in foreign language teaching and learning. Her article questions the place of games in language teaching and more specifically examines how the transition between the use of traditional games in the classroom and their adaptation to digital media has been carried out. She examines the potential benefit of digital versus traditional games in the light of current teaching methodologies and discusses the design of learning games with regard to striking an adequate balance between fun and serious as well as respecting the didactic guidelines of the game. She gives an example referring to the design of a 3D immersive learning game for French and German languages. [25]

Both studies on the game of snakes and ladders still use conventional games system. To answer the challenges and keep up with technological developments, it is necessary that the game be adapted to the recent condition and needs of the current digital era.

Previous researches show that many Medias are already created for intercultural learning and the use of snake and ladder games in language teaching. Therefore, to complete the existing research, this research discusses the development of snake ladders game as a variation of teaching and learning activities for studying Indonesian and French culture. In addition, for adapting to the digital era, the game developed will be based on computer and android. This game is also accessed offline so it doesn't need the internet so that it can be used for learners who have difficulty with an internet connection.

Based on the description above, there are 3 problems discussed in this study:

1) What do Indonesian-French culture lecturers and learners need regarding Le Tour de Culture adapted from snakes and ladders game, as intercultural learning media?
2) How is the final product of Le Tour de Culture that can be used for learning Indonesian and French culture as an intercultural context?
3) What is the result of game's validation?

2 Methodology

This research is a development research using the R & D approach to develop a new product in the form of snake and ladder game for learning Indonesian and French culture. The target in this study is the development of game for intercultural learning adapted from snake and ladder game.

The development research steps refer to the development research design according to Sukmadinata, [26] which modify Gall and Borg's theories, namely: 1) Preliminary studies, which include literature studies, field surveys, and preparation of draft models. Review of the draft by experts, and its refined based on expert's suggestion; 2) the test of model which carries out in two steps: limited and extensive testing; 3) final test of product and its socialization. Figure 1 shows research's steps.

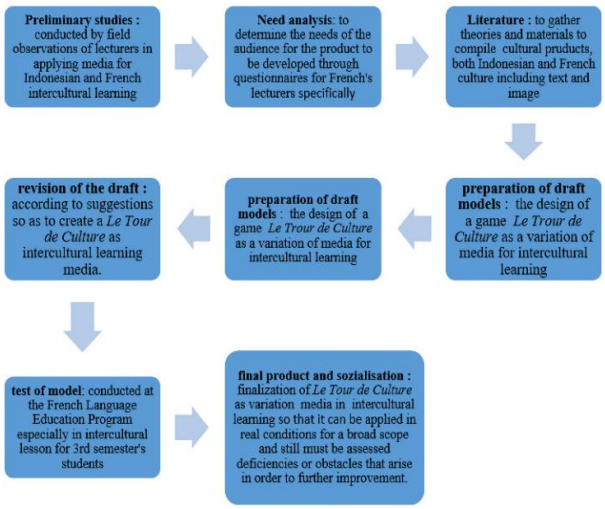

Fig. 1. Research's steps

Before creating the game, there is a technique used for collecting the data: questionnaires, to obtain information about the game's content that lecturers wan. The following are the observation and questionnaire grids:

Table 1. Questionnaire grid.

Indicators	Sub indicators	Number of item
1. Implementation of intercultural learning between Indonesian and French culture	a. Teaching of Indonesian-French intercultural lesson b. Media used in Indonesian-French intercultural learning	2
2. Use of educational games in Indonesian- French intercultural learning	a. Use of games in Indonesian-French intercultural learning b. Opinion about educational games	2
3. Recognition of snake and ladder game	Opinion about snake and ladder game	2

4. Needs for development of snake and ladder game for Indonesian and French intercultural learning	a. Agreement of snake and ladder game as media for Indonesian-French intercultural learning b. Contents of snake and ladder game for Indonesian-French intercultural learning	2
5. Expected elements of snake ladder game for Indonesian and French Intercultural learning	a. Need for game description b. Require for game instruction? c. Number of boxes needed to made for the game d. Colours expected to the game display e. Type of music suitable as back sound for the game	5

Table 1 contains the questionnaire grid to reveal the needs of the research's product, covering the use of media applied in Indonesian and French intercultural learning, the opinion about the use of educational games, including snake and ladder game, and the need and also the elements expected to have in the game.

After creating the game's draft, a validation from expert is needed. There are several aspects jugged in order to get the game's quality. Table 2 shows the validation aspects noted by experts. Each aspect has 4 rating scales ranging from 1 – 4 : score 1 means the product has less quality, 2 means it's enough, 3 means it is good and 4 means the game has a very good quality. Validators must regard eleven validation aspects covered clarity of game description, clarity of game instructions, colour composition of game display, clarity of background music, suitability of the background music with the game theme, suitability of the background image with the game theme, clarity of the image supporting the text of the cultural product, suitability of the image with the text of cultural products, clarity of text descriptions for cultural products, the scope of cultural material in the game and smooth of game execution.

3 Findings and Discussions

There are three problematic proposed at the introduction that will be answered in this section. First part is finding which discusses the product design steps including preliminary study, needs analysis and product design. Second part is the discussion, showing the final product and the last discussion focused on the assessment of the game.

3.1. Needs for creation of the game

The data collection revealed lecturers and students need for game's creation. There were two lecturers who teach Intercultural lesson in university for French Education Department and French Literature Department, and also 21 students from different levels, who gave their point of view to the game that would be created. Table 3 shows their answer.

Table 2. Result of need analysis.

Questions	Answering option	Answer	
		Teachers	**Students**
1. Intercultural learning is part of French as foreign language. Have you taught intercultural content between Indonesia and France?	Often Rarely Never	2 (100%)	8 (40%) 12 (55%) 1 (1%)
2. What kind of learning media have you used in intercultural learning between Indonesia and France?	Text (books, modules) PPT Voice Recording Film Video Game Others	2 (100%)	12 (55%) 1 (1%) 5 (25%) 3 (15%)
3. Have you ever used games in intercultural learning between Indonesia and France?	Yes already Not yet	1 (50%) 1 (50%)	7 (35%) 14 (65%)
4. Do you agree that educational games allow learners to understand the intercultural material in a fun way?	Agree Disagree	2 (100%)	21 (100%)
5. Are you familiar with the game of snakes and ladders?	Yes No	2 (100%)	21
6. Do you agree that the game of snakes and ladders is a familiar game easy to play?	Agree Disagree	2 (100%)	21 (100%)
7. Do you agree if the game becomes an educational game for learning Indonesian - French culture?	Agree Disagree	2 (100%)	19(90%)
8. If you are going to create a snakes and ladders game for intercultural learning between Indonesia and	Picture Text Music Others	2 (100%)	2 (10%) 20 (95%) 1 (5%)

	France, what elements are there in the game?			
9.	Does this game need to provide a game description?	Absolutely No Perhaps	2 (100%)	
10.	Is this Game requires game instruction?	Absolutely No Perhaps	2 (100%)	14 (65%)
11.	How many boxes need for this game?	<50 50 >50	1 (50%) 1 (50%)	7 (35%) 19 (90%)
12.	Regarding appearance, what colours do you expect to the game display?	Black and white Combination of bright colours Combination of dark colours Combination of Indonesian-French characteristic colour	1 (50%)	2 (10%) 12 (55%) 6 (30%) 3 (15%) 6 (30%)
13.	Regarding music, what music is suitable as a back sound for the game?	Popular song music Classical music Traditional music Children's song music	1 (50%) 2 (100%)	15 (70%) 6 (30%) 8 (40%) 2 (10%) 4 (20%)

Regarding to the result, we collect important answers becoming the reasons and references in game's creation for intercultural learning named Le Tour de Culture. First, we revealed that there is an intercultural lesson both in French Education and French Literature Department. So far, media that have been used for intercultural learning include books and modules, power point presentation, film and video. Games have never been used as a learning tool for studying Indonesian and French culture. Meanwhile, respondents are agreeing if educational games allow learners to understand the intercultural material in a fun way. These situations become the right reason to create a game for intercultural learning. Second part, Snake and ladder has been chosen as a model for the game will be created. All respondents know the game and they agree that a game adopted from snakes and ladders will be developed as intercultural media because of its familiarity, its simplicity and its easiness of playing.

And finally, in relation to the game's elements, according to the results of the questionnaire, it was decided that Le Tour de Culture consists of pictures and texts. This game will be completed with a description and game instructions and there will be less than 50 game boxes in order to prevent learners from feeling stressed because of a lot of squares that must be played.

The colours expected are combination of bright colours and Indonesian and French characteristic colour, which means it will be dominated by blue, red and green. Blue and red are chosen because it represents Indonesian and French colours. Green represents a bright and calm colour. So that the game becomes more festive, background music is needed to accompany the learners in studying intercultural material. A traditional instrumental music from Central Java is selected to animate the game.

After getting the results of the need for intercultural learning's games, the next step is development of *Le Tour de Culture* game.

3.2. Development of Le Tour de Culture

Game elements are created based on respondents' requests during data collection. *Le Tour de Culture* is created to support intercultural learning and refers to the material of Intercultural Course. There are fifty Indonesian and French cultural product in the game. Table 4 shows distribution of cultural products contained in the game.

Table 3. Distribution of cultural material

Cultural product	Total item
Geography	6
Landmark	4
Politic and economy	4
Calendar system and celebration	4
Traditional food	8
Traditional beverage	4
Gastronomy	4
Sport and leisure	4
Transport	4
Health	2
Showbiz	6
Total	**50**

Besides the core of the game, *Le Tour de Culture* is also equipped with supporting elements: game info and game instructions in order to make it easier for users, both lecturers and learners for playing it. Regarding Schmoll's opinion, there are four modalities of the play or game design, which are: understanding of the mission and objectives set by the game structure, rules of the game and possible actions depending on the level of player, knowledge that the player develops during his progression concerning the universe, characters, skills, content and freedom of the player who can decides if he wants to continue, to succeed or not. [27] Therefore, this game was designed by following these modalities. The application consists of the front page, game page and end page. This is the explication:

Home page. The game's home page displays three clickable button icons: game info, game hint and start game. Users will get information about the description and the purpose of this game. LE TOUR DE CULTURE is an educational game to learn Indonesian and French culture. Inside there are fifty cultural products from two countries presented in the form of images and explanations. The game aims to enrich the players' intercultural knowledge. And this is how to

play the game: this game is to be played individually by clicking the dice icon to read explanations and pictures about cultural products, both Indonesian and French. After that step, players click "next" button to continue the game. And finally, players play to the last square to develop their intercultural knowledge.

On the home page of the application, we find representatives of culture from two countries: 1) Image of two men wearing Indonesian and French traditional costume; 2) traditional song for game's back sound with a title *Jaranan*; 3) Indonesian and French landmark such as Eiffel Tower, LawangSewu, Monas and Arc de Triomphe. Figure 2 shows the front page's display.

Fig 2. Home page's display

Game page. This page shows the main part to be played. Twenty five game squares were formed as a snake. Light colours dominate the page. The Indonesian and French flag and the images of famous buildings accentuate that it is an Indonesian and French intercultural game as shown in figure 3.

Fig 3. Game page's display

Each time the player rolls the dice, he finds a cultural product either Indonesian or French. This product is in the form of an image and completed with explanation text. Figure 4 shows the example of the page display.

Fig 4. Example of the page display

End page. The end of the game is marked by the inscription and the background of the Indonesian-French flag. When the player arrives at the terminus, he finishes the first round and can continue to the second round to have the different cultural products. There is a Remarque *Congratulations! You complete the game*, to give appreciation for completing the game, as shown in figure 5.

Fig 5. End page's display

The game has been completed and is ready for the next step, for validation and testing.

Based on the categorization of modalities, Schmoll proposes four different modalities for a possible edutainment use of video games in the classroom, covered educational simulation, edutainment software, gamification, learning game, and serious gaming. Among these modalities, Schmoll is more likely to be interested in serious gaming. Using serious gaming means use existing video games, that is, originally designed for entertainment purposes only, and then assigning them learning objectives. Teacher can suggest that learners play a video game because it helps achieve a specific language goal. [28]

Le Tour de Culture is more categorized in edutainment software, referring to its characteristics. Edutainment software can be considered as the ancestor of the learning video game, in the sense that it is on a digital medium and that it presents educational content, by inserting playful sequences with challenges and rewards. Edutainment software is generally designed for a young audience. In addition, the position of French in Indonesia is French as a foreign language, which its learners are beginner even though they are adults. So they are not ready yet for having serious games as learning tool.

3.3. Assessment and Validation of the game

The assessment and validation were carried out by several groups, including experts in French and media, French lecturer and learners. There were three French lecturers mastering the fields of culture and media and two high school teachers. Twenty French students have the opportunity to try the game and give their assessment and opinion to the game.

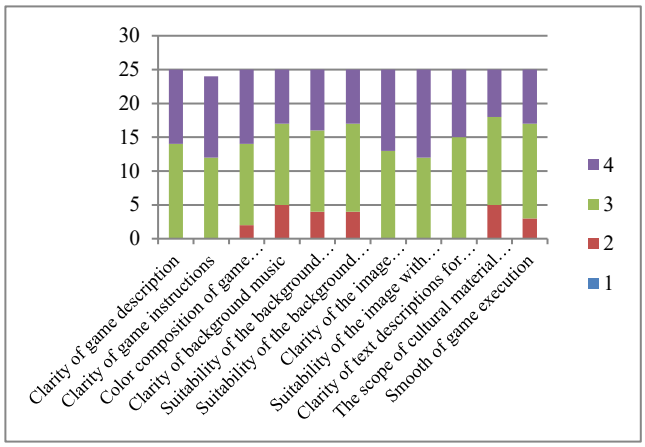

Fig 6. Game assessment

In figure 6, we can see an assessment of the game Le Tour de Culture. There are eleven aspect noted for the game as explained in methodology. Each validator has the same right to assess the game with a scale of 1 - 4. After counting the result, the readability test results showed that the game is easily understood by validator and respondent, with the average score being 80%. Based on the exposure that has been conducted, *Le Tour de Culture*, the snake ladder game made with Adobe Animate as media for intercultural learning is declared valid has very good qualification. This game can be installed on computer and android so that users can more easily access and play it.

In addition to the results mentioned above, they also give their points of view against the games that have been made. They think that *Le Tour de Culture* is a cool application. Its colours & music used help learners to be more innovative in learning French culture and language. The colours, music, and competition really increase the motivation and enthusiasm in learning Indonesian and French culture. It is innovate and adaptable and it's a good game that can add insight into French and Indonesian culture. This application is very interesting and simple. By using a game of throwing dice like a snake and ladder, we will be invited to see French and Indonesian culture. It is very cool and creative.

The validators give also some suggestions for the game. As for Indonesia's modes of transportation, it would be better if there are *Becak* et *Bajaj* as traditional transportation. And as a French-style game, the music needs to be combined with the music of French children song as well. The game has a nice view, but this application only contains information. The elements of the game are lacking, because there are no tasks that the player has to complete. There is no reward after completion of a certain stage.

Some suggestions for assessment can be realized, for example by adding a supporting document in form of an online test for evaluating learning's the level of Indonesian and French culture.

In fact, *Le Tour de Culture* is a game that serves to learn French as a foreign language. Therefore its development also considers that situation. The game assessment aspect also regard into the status of French learners in Indonesia where French is their first, second or even, official language. Some aspects of the assessment are in line with Ryu, who was considering to the clarity of words or phrases used in game play that could be learned while playing games and engagement in gaming culture were closely related to language learning through repeated practices and collaborative interactions. [29]

4 Conclusion

Based on the description above, we can conclude that:

1. Both lecturers and learners are interested in the existence of intercultural learning media adapted from snake and ladder game. They want if the game made less than 50 boxes and equipped with supporting elements such as game info and game instructions. In the game, there are elements of images and text and also traditional music and bright background colours that represent Indonesia and France.
2. The final product is Le Tour de Culture, a game for intercultural learning, created with Adobe Animate that can be applied on personal computer and Android. The game was constructed regarding to the needs of lecturers and learners. So that users can profit it to teach and learn Indonesian and French culture both in formal or informal education situation. Brugère stated that the game therefore refers first of all to an informal learning situation when it is part of the leisure world, its most ordinary use outside of its transfer to a new setting. Anything outside of school or university is not informal, because there is non-formal. Indeed, formal learning logics can develop through the use of equipment, website visits, and recommendations from teachers including the use of certain games. [30]
3. After the creation process, the game was assessed by university lecturers, high school teachers and also tried by students in French Education Department. The validation result showed that the game is easily understood with the average score being 80%. Which means that Le Tour de Culture, the snake ladder game based on computer and android mobile for intercultural learning is declared valid and this android game has very good qualification. The game is ready to use in a large scope for increasing Indonesian and French cultural knowledge.

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Teacher's Perception of Mobile Game-Based Assessment in ELT Context

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Abstract. Mobile-based assessment is one of the ways that can be applied to English teachers to produce a good teaching-learning process in the English Language Teaching (ELT) context. In this era, the use of technology has created new possibilities. In this digital era, the students need to have significant exposure to digital media in the teaching-learning process. The perception of the teacher about mobile game-based assessment in ELT context may influence and affect the mobile game-based assessment implication in ELT context. The goal of this study is to investigate the teacher's perception of mobile-based assessment in the ELT context. The design of this study is qualitative research. This research involved ten English teachers from ten different senior high schools in Riau province and the data collected through semi-structured individual interviews, which was designed to obtain teacher perception of mobile game-based assessment in ELT context. After the data analysis, it found that the ten English teachers have positive perceptions toward mobile-based assessment but still need improvement. The research also showed that all of the ten teachers were aware that their role when using new technologies in education has changed, but because of the lack of necessary training, they were not clear on how to adopt these changes. The findings also revealed that they still do not know more about the mobile-based assessment and not too familiar with it.

Keywords: Mobile game-based assessment, English Language Teaching (ELT)

1 Introduction

Nowadays, the mobile phone is not a strange thing anymore. Everyone must have it because we depend on the mobile phone. The ownership of mobile phones in Indonesia is growing a lot. Since the mobile nature of hand telephony and the ease of communicating have made it almost a necessity. The mobile sector grew from over 2 million subscribers in 1998 to 15 million, a penetration of 60%, by early 2005 [1]. Indonesia is one of the South-East Asian countries that have high mobile penetration and the highest mobile internet use. Besides, In this era, the students need to familiar with the technology culture to support themselves involved in the digital age. It is crucial because today, there are many of the existences of learning models in which it uses technology in the teaching and learning process and provides in the mobile phone application. There are lots of supporting English learning applications that help the students to learn English. It cannot avoid that this phenomenon happens since it is the effect of the development of technology. This digital world requires the students to be able to use various media and able to construct knowledge by using it. These changing learning needs make all of the English teaching processes should be changed. They must be upgraded to make the students

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have the proper skill as we can say that in this digital age, technology plays an essential role in supporting the English learning context for students.

Because of the phenomena, integrating technology and English material for the students was essential. Using mobile application was one of the good solution to make the students interest in English lesson. Integrating technology with the English assessment was indeed for education, entertainment and games.

However, the use of mobile games based assessment was still rare. The assessment that the teacher uses in the English classroom still becomes an issue. Based on the researcher's interview with the teachers and students in one of the senior high schools. The writer found that some of the teachers and students use game-based assessments to involve the English teaching-learning but still feel uncomfortable to use it. The teacher often used technology in the teaching-learning process and provided the assessment by using technology; however, they never use any mobile application like e-learning application or game-based learning application to display the assessment. The use of high-tech media like mobile game application based assessment still rare. In this digital era, the students need to have significant exposure to digital media.

On the other hand, nowadays, the teacher expects to be a step ahead in using technology. The teacher should provide the learning experiences that allow students to engage in practices that promote English with integrated it with the modern way. The teaching and learning activity should not use monotone and limited activities and assessments in the classroom. Still, it should incorporate computers and the internet as a source and media for learning. In short, the materials and media used must facilitate the learning activity to happen wherever and whenever. Game-based assessment with local content is one of the good ways to provide the cultural context but also can rich the English learning outcome in ELT context

Over the years, issues related to mobile technologies and mobile games have been studied by several researchers. [2] find out that if applied to educational settings, mGame has the potential to enrich the learning experiences of learners. The mobile technologies also can be useful tools in increasing the student's skill and catering for students in this era, and mobile games fostered the student's motivation in learning English in the classroom [3],[4],[5]. Also, the other advantages of using mGames at the school were to help the students to learn English quickly [6]. The other research showed that the learning that uses mGames was known as mobile game-based learning (mGBL) as stated by [3]. The mGBL used mobile games as the media to in classroom to teach the students and use the wireless transmission [6],[7]. and it can be applied to all of the learner's generations, at children, young adults or even older age. [8] explained that mGames was developed by popular games such as shooting games with guns, and violent games. Most of the games adding the violence part in their storyline game. Since, it is influenced by the teenager's growth process [8] and GBL is a crucial alternative to traditional teaching [9], mGame-based learning should be further explored.

Based on the researches above, the focus topic is only about mobile game-based learning. There was no study talked about the mobile game-based assessment. Based on this condition and needs, this study aimed to know how were teacher's perception of mobile games based assessment in ELT. It was considerably needed because it may influence the implementation of game-based mobile assessment in the ELT context.

This study's aim was to find out about the teacher's perception of game-based assessment in the English Language Teaching (ELT) context. It was essential to know first about the teacher's perception of this case because it might influence the implementation of mobile-based assessments in the ELT context. Teacher's personal perspective about this case will influence teacher's decisions regarding mobile game based assessment use.

Based on the overview above, this research focuses on mobile-based assessment that attempts to investigate the teacher perception of mobile game based assessment in ELT context.

2 Literature Review

2.1 Mobile content (mContent)

Mobile game (mGame) is the games that can be played in mobile phones [10]. It is aligned with what IBM stated that mGame is the game that developed or adapted for phones or other mobile devices. According to [11], mGames are classified into three categories. The first one is embedded games, that is, games that are inserted or make for the specific devices only and make it into the mobile device's system: the example is Snake, only available in all Nokia phones. Then, the second is the SMS games, often in the form of live contests and polls. The last is browser games; it is played using the mobile phone's built-in microbrowser and can be accessed either online or offline mode. Meanwhile, mGame genres also can be divided as follows the arcade or action, the sports, the skills, strategy and logic, the card and board, and the role-playing game.

All of the categories above are the games that can be choose for players to play. In previous years, mGames may be performed using the technologies that supported in each mobile phone, such as by messages, multimedia messages, or GPS location identification. However, now the common one is the games are downloaded to the mobile phone and played using a set of games technologies on the devices. This situation makes the developing of mGame is beneficial in this era, especially in the education area. The mGame growth is spectacular because some factors, including games, is easy to use and entertaining, using hybrid devices and can be used in increasing the student's skill or knowledge, then enhanced the infrastructure capabilities. This issue has become more crucial because more than one billion mobile phones are in use today [10].

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2.3 History of mobile game (mGame)

Mobile game invented first in the 1980s when the Nintendo Company introduces the portable LCD series 'Games and Watch.' The game character in the portable LCD was Mario [12]. After the portable LCD from Nintendo hit big success, it introduced the new kind of game console called Gameboy-console. On the other side, Nokia Company developed a new game that can be played on a mobile phone. The first game of Nokia is Snake. Even though it was so simple, yet it was famous and successful. Since then, Nokia kept developing mobile games for their phones, which installed permanently and only on Nokia mobile phones.

In the late 1990s, new types of mobile gaming appeared, which allow the games can be play with multiplayer gamers. These games were WAP-games and SMS-based games. Next, in 2001, when mobile phones had and equipped with color screens, the Java games appeared and were introduced to the market. Then, when more advanced phones (such as smartphones) were appeared and produced, and technology became more sophisticated, the N-Gage platform and wireless online gaming become the jackpot in mGame. The 3D-graphics and natural sounds were supported in it [12]. Nowadays, mobile gamers have the opportunity to sample much more innovative choices of mGames because technology also rapidly changes and becomes more advance, such as location-based games [13].

2.4 Game in Education

In this digital age, it is essential to give interactive activities in the classroom. One of the interactive activities that we can apply at the school is game-based learning. The term game is a fun activity, engages the students, and provides a challenging experience when the students play it [14]. It is due to these qualities that the use of games for teaching has been highly acclaimed for educational purposes. Game-based learning is one of the crucial assets that change, of course, in teaching. [12] mentioned games are so intertwining with the educational features. This phenomenon is also called gamification.

Using games in the classroom gives the students more active in doing the activities in the classroom, and they will be interested in doing something related to the material subject. Also, games promote the student's motivation to learn and encouraging them to make a more significant effort to involve in learning activities in the classroom. Meanwhile, games may also be one of the beneficial ways to teach English for students who are not from English speaking country or English Foreign Language (EFL) students. It supported by [16] that said the games-based learning has a fun element and at the same time it is perfect for EFL students because when the teacher wants to teach a new language, it is essential; to consider the pedagogical value and the game have the pedagogical value and provide the opportunities for real communication, along with the motivation they offer and the low levels of stress involved.

In conclusion, the use of games in education will provide a motivating, fun, and effective manner and activity to learn a foreign language, especially learning the English language for Indonesia students. In addition, it increases a positive learning environment and provides the other style to teach English in the classroom.

2.5 Game-based Assessment (GBA)

Game-based assessment (GBA) is the application of principles of game design to measure human performance when people are striving to perform at their best. In school, seeing the student's performance during the class and at the end of the course are often used the traditional assessment or formal standardized test to measure the student's learning and see how to understand they are with the material. However, these assessments are pathetic and problematic. They are usually used to provide the final judgments rather than to support the students during their learning [17]. These kinds of assessments are hard to assess a higher level of thinking skill or foster the students to do something complex in a fun way. These kinds of traditional assessments often fail to provide useful and practical feedback to the students during the teaching-learning process [18]. Therefore, to make the students become active and empower students, it is essential to designing and developing other alternative assessments for English language teaching process.

GBA has many advantages. First, GBA is able to use to evaluate many things that cannot be test correctly in paper-based assessment methods [19]. When the students learn with digital games, the students will require many tasks to complete a whole task and achieve the learning outcomes. Because technology has improved significantly, digital game-based learning will provide the students with interactive and simulation-based learning experiences, and it is worth it for students [20].

Next, the second advantage is GBA can provide a pleasant and positive testing experience for the students [19]. It contrasts with any traditional assessment methods that give the negative effect or influence to the students during the learning process, for example, the anxiety that the teacher feels it in the classroom [18],[21]. Because of it, it may have an adverse impact on their performance or their understanding of the material, and as a result, the assessment cannot be used to see the valid result of the student's performance. Moreover, without external interruption, students will perform authentically, and the result of the assessment will show an accurate result [22].

Then, GBA used in the classroom will make the game-based environment. It may help the teacher to record the whole process about student's learning performance and increase the validity of the result itself. GBL environments can use for the teachers to see the step of students' development and help capture how the students make decisions about something [23],[24]. Also, in GBL environments, the students can produce the task more than those in traditional assessment, and learning settings can do [18]. The results of assessment also can help the teachers to understand more about how the students get the information, how well they are producing the data, how they can achieve the learning goals, and how they behave and see the learning objectives. It can be concluded that the teacher can see the personal improvement of each student.

3 Research Methodology

3.1 Research Design

This study was qualitative by employing a case study research design. This research design was chosen because it helps the researcher to go deeper into the participant's life and obtain more precious and valuable data. It was supposed to lead the researcher to a possible solution regarding the condition or problem. A qualitative design was chosen since the study did not intend to the generalizations to the broader context and is not interested in revealing statistical data form comparison. It aims to show a detailed picture from a small number of participants that would provide a detailed answer. The case in this study was about the gap between the teacher's perspectives about mobile game based assessment the ELT context.

3.2 Participants

The participant was selected by using purposive sampling. There were ten Senior high school teachers from five senior high schools in Riau. The selection considered by the necessary data, which intended to be collected. There were some reasons why the writer wants to choose these schools as the site of research. First, the phenomena of this research found in these schools. Then, it is a suitable place to answer the research question about the teacher's perspective of a mobile game-based assessment in ELT context.

3.3 Data collection

In this study, a semi-structured interview used to obtain further and in-depth information about the student's perspective about the mobile game based assessment in ELT context. There was an interview guide developed to answer the research questions. Then, this kind of interview was intended to have a casual interview like conversation and dialogues rather than formal or simply ask questions. The interview was recorded by using a digital recorder for then transcribed in written format. The interview guide was intended to find out the teacher's perspective about mobile-based game assessment in ELT and also the condition of the teaching and learning English process in terms of assessing class.

3.4 Data Analysis

Data was collected from an interview. The data analysis consisted of procedures for preparing, organizing, examining, tabulating, categorizing, and interpreting the data to address the research questions. The procedure and processes of data analysis were adopted from the related theory and related to previous research. The analysis of the qualitative data started with transcribing the interviewing. The analysis data began with the transcription of the audio-recorded interview and phone interview data. Then it was followed by the familiarization of the data transcribed through reading the transcription several times. The data were then given meaningful codes, and those codes were later developed into categories to collect the most relevant data under general labels. These categories and the data that suit them best are presented in the following section.

4 Findings and Discussions

4.1 Teacher's perception of a mobile game-based assessment in ELT context

The interview was carried out by ten teachers from the five senior high schools in Riau. All of the teachers are English teacher in Senior high school. The interview data were grouped into modes of personal experience of gaming, teacher's assessment philosophy, teacher's assessment method, teaching with digital or mobile games, teaching with mobile-based assessment, advantages of mGame based assessment, and barriers to implementing the mobile-based assessment.

Based on the interview, the researcher found that teacher's personal experience with gaming differs in each teacher. Teacher 1, 8, and 9 told the researcher that playing games from an early age. She asked that there was some games application on her phone. Meanwhile, teachers 2 and 3 had little experience with gaming. They liked playing games, but they did not always play it continuously.

Meanwhile, Teacher 4, teacher 5, and teacher 10 said that they had no experience at all in gaming, but love played games with the students in the teaching-learning process. Besides, teacher 6 and 7 stated that they loved games. They played games because they loved it. There were many games application on their smartphone. They thought that games were only for the children, and they acknowledge they were not interested in games, especially game applications. They said that the reason why they played digital games because when they were bored, some of them played games. In another hand, two of them played games because they had interest in playing games.

Also, about teacher assessment philosophy and their assessment method in English classroom were according to what teacher 1 said in the interview, the teacher 1 enjoyed when the students assessed through oral activities, listening activities, writing activities and worksheets. The reason behind these assessment criteria was that because asses English for the senior high school students would be good if the teacher used many activities related to the oral and writing activities.

Next, teacher 2 claimed to prefer written tests when assessing students' performance. The reason was that she believed written tests are more objective than oral evaluations. Moreover, written tests were more comfortable to design, administer, and assess. According to her, written tests indeed demonstrated students' knowledge, and through the results of written tests, she could have evidence of which students had learned and studied and the ones who had not. Nevertheless, when asked for the method, she thought students felt more comfortable with, teacher 2 stated that students felt more comfortable when being assessed through group work. However, teacher 2 usually tried to avoid teamwork because, in her opinion, the amount of work was never divided equally among the members of the group. There would always be students who did not work and students who did the entire job themselves. Also, she used many varied learning methods in her English classroom, yet the written test was a must in every meeting. It was similar to what teacher 8 said. She believed that the group was so risky, and it was hard to see student's understanding. She tended to assess the students individually.

Meanwhile, teacher 3 and 7 assessed students, mainly through written tests, notebook revisions, and group projects. The reason behind these assessment criteria, according to the teacher, is that students were accustomed to being evaluated through those methods. Since they worked mostly with the student's book, the teacher tried to implement test items similar to the ones seen in the book. Students were informed of the contents that would be asked in the test, but as previously mentioned, they did not always take note. The teacher always asked questions with the same level of difficulty as the ones seen in classes.

Next, the teacher 4, 9, and 10 stated that when assessing students at school, the evaluation tends to written tests. Concerning the question about which assessment method students felt more comfortable with, the teacher believed that they felt more comfortable with written tests. Although students were familiar with written evaluations, they tended to experience negative feelings when being assessed. So sometimes, they do the oral task activities, played the game, or did the listening activities.The last, teacher 5 and 6 stated that she assessed students mostly with oral and written test. She felt comfortable when she assessed her students with that kind of assessment. It was because oral and written were the test that can assess all of the student's English skills.

As seen in the result of interview, game-based assessment still rare to use it from most school. It also found that there is a lack of variety of teaching-learing assessment method. Game-based assessment was one of the assessment that can enhance communication between the teache and the studnts. Game-based assessment was the perfect option to implement in English classroom given that everyone likes to play [25], it is a natural way to learn [26], and that it leads to the use of English in the classroom in a communicative environment [27].

In all five schools, mobile games or digital games were rarely used for teaching in their school. The fun and motivation as the main advantages of mGames because they agree mGame in English classroom make their students learning without realizing. However, when the researcher asked about mGame based assessment, five out of ten teachers from different schools said that they never know the term of mGame based assessment. Some of them have the experience of using mGame in English class. Teacher 1, teacher 4, teacher 6 and teacher 7 have experience using mGame-based assessment like Kahoot but rarely used it. Meanwhile, teacher 2, teacher 3, teacher 4, had experience using Kahoot in English class. They often used Kahoot in their teaching. While teacher 8, teacher 9, and teacher 10 did not know about mGame based assessment, and they used regular game activities rather than using game applications when they assessed their students. When discussing the barriers or challenges of mGame based assessment, the teachers from all of the different schools talked about they have a lack of knowledge about mGame based assessment.

Teacher 8, teacher 9, and teacher 10 explained that they did not even know about mGame based learning, especially mGame based assessment. The teachers also stated there were no many training talked about that, and it was challenging to implement in the classroom because the teacher needs to learn again about how to manage their classroom in terms of implementing mGame based assessment. However, teacher 1, teacher 6 and teacher 7 admitted it was hard using mGame based assessment because the time allocation in the English classroom not extended. If they used mGame based assessment in her class, the students would feel overjoyed, and the English material was not wholly given to students. Then, teacher 2, teacher 3 and teacher 4 admitted they believe it had positive impacts on students but doubted use mGame based assessment because afraid of being lost in manage their class.

Based on the answer of the teacher, some of the teachers still afraid about the class management when they used mobile-based assessment in their classroom, some of the teachers thought that they will lose their attention to learn and the class will be ruin because of the mobile game based-assessment. This phenomenon showed how teachers did not fully confident and did not trust their students. In addition, they tend to control their classroom instead try the new thing that can lead students to be active in class [28]. Then some teachers believe MBGA had positive impact for the students English performance in class. This findings further support by theory that said doing assessment by using game prove that the students felt more ease and when they use learning by doing approach to gamification encourages how they think about the knowledge itself [29].

Then, the teachers agreed that mGame based assessment had many positive impacts and negative impacts on students and teachers. Seven teachers believed mGame based assessment in ELT context would increase student's attention in doing the assessment, and the students would not feel reluctant anymore because the game will make them relax. It improved the student's thinking skills, creativity, collaborative skill, and visual-spatial skills. However, some teacher shared their challenges if applying mGame-based assessment in ELT context. Three teachers shared that they will lose focus because too happy to play games, and it will be hard to manage the allocation of time during the English teaching process happened. They believed the mGame based assessment made the students are lazier to complete an assessment if the assessment was not designed digitally or using games. The mGames based assessment also only develop the shallow skills for the students rather than in-depth ones. The last one is it will be hard for the English teacher from the older generation that was not too familiar with the technology product. They also shared the same worried about lack of knowledge of using it and needed more time to adapt to new environments and situations because they need to be more pro than their students to use it.

Teacher 1 stated that she I think it is time for English teachers to be more active in using something digital in their teaching-learning process. However, think she think it still difficult to use it because of the facilitation. Even the students allowed bringing mobile phones to school; the English teacher seems unready to give them more time using mobile phones during ELT process. In the interview, teacher 1 agreed on how mGame based assessment would make the students more active involvement in the English classroom. However, at the same time, she also admitted about how it was still hard to use and applied it in ELT context, especially in her school. At the same time, teacher 3 and teacher 4 also shared the same feeling that it would be hard to give the students a big chance to use mobile phones longer in the classroom. They said that students always easily distract, and teachers seemed unready to face this condition. Teacher 5 also stated that because she was from the older generation, she admitted she could not use technology appropriately, so it would take time for her to get used to the application.

However, it was in contrast with what teacher 2, teacher 6, teacher 7, teacher and teacher 8's opinion. They thought that it was fun and a great chance to make English had a fun subject. Some of her students did not like English because it was a foreign language. Even she tried to use varied ways in English teaching language, some of them have low self-confidence in English class. mGame based assessment was a way that made the students develop their eager to learn English. It is parallel with what [30] points out that when students are a pleasure to do something, happiness cannot be separated from deep learning and working hard.

On the other hand, teacher three was quoted as:

"I think it will be good if we are not replacing the way we teach because it can become a lazy way of teaching if you already have familiarity with the digital one. It needs to be targeted carefully. I am worried it may take over the traditional method of learning and display the assessment, using books, and the others. Sometimes, this not so many games as much, but sometimes they read something on the internet, they readjust snip of it and have the whole answer because of the internet. You know, the internet makes everything is easier. They also do the copy one."

Based on teacher 3 statement, the interesting part was she tried to make a connection between how learning manifests in the classroom and how digital games are taught. Also, teacher 9 and 10 agreed about how mGame was essential to help the teacher's job to assess student's understanding, especially in ELT. But they also agreed that allowing the students to use their mobile phones while teaching-learning process happened was not a wise decision. Based on their experience, they have made game based assessment with Kahoot application, but the students use it on their laptops, not their mobile phone.

Based on the results of the present study showed that mobile based assessment helped the teacher to gain the student's curiosity, increased the learning motivation and make them more lively because game is the best tool for the students to learn English and learning performance increased because of it. It was lined with [31] stated that games was the fusible tools for teacher to make the students more active in classroom. However, besides many advantages, [32] explained that games have negatives sides when teacher used it as a tool in teahing learning process. it was also supported the answer of the teacher's perspective of using mobile game-based assessment in ELT context.

On the other side, they stated their awareness of the relationship between pedagogy and practice was high. Teacher 4 had viewed that "You know, it is hard to see the impact of mGames based assessment or mGame based-learning in the learning outcome. It is effortless for the students to get lost and carried away with digital games in the classroom. The students can be fastly absorbed because it is quite fun and not taking learning objectives from it. If it was structured in a coherent way and appropriate strategies use, then it can be beneficial." In this interview, teacher 4 stated mGame based assessment would benefit and improve the student's English skill if mGame well designed and concern with the pedagogy component. It could not have permanent results if mGame just focus on the visual factors because students only felt entertained, and they would get lost and missed the purpose of using mGame. In contrast, well-designed games can engage the students in reflecting thinking [33].

Also, many teachers mentioned the students would learn without realizing it. The thought that this had a very positive impact of mGame based assessment as it made assessment look like a less formal place. They quoted,

"..... they will think they do not seem like they are learning, like in school, or it is not like writing this down. They enjoy it, and it is entertaining." - Teacher 1

"They will forget that actually, they do the classroom assessment. And it keeps them interested and thinks we have been nice…" – Teacher 2

"It will make them pay attention. To be honest, some students are afraid with the English language assessment. Using mGame based assessment will make them pay attention, they learn from it but they do not even realize they are learning." – Teacher 3

"I can see this application will make the student motivation to learn English. The thing that makes me worry is when they have English class in the afternoon. It is hard to make them pay attention to us. Using digital application-based learning will help English teacher to managing their students in classroom." – Teacher 4

".... I believe it is a jackpot for the English teacher. – Teacher 5

"I am pretty sure that using game as the tool to make the students comfortable when we assess them was not a joke. It was impressive." – Teacher 10

In addition, teacher 6, teacher 7, teacher 8, and teacher 9 had the same perception with the other teacher that mGame was sufficient to make students were not afraid when the teacher assess them in ELT process.From this interview, it can be said how mGame based assessment could be one of the alternative ways for English teachers to make the students felt enjoyed while being assessed. It is aligned with three research form Anderson, Gee, and Squire that claimed games are known for their exciting and engaging features and have the potential to promote meaningful learning [34],[30],[35].

One interesting finding was about the mGames based assessment, terms such as an exciting, good idea, and effective were widely used. They agreed that mGame had many advantages for them but still need more familiar with it. However, along with the interview, the teachers only talked about the Kahoot application. They did not know the other mGame based assessment application that can use to help them to assess the students.

From the interview, the data indicates that the teachers are interested in teaching with mGame based assessment. All of the teachers believe that it is perfect for drawing student's attention and making them enjoy while being assessed. All of them saw mGame as a useful education tool. However, they seem not to have a clear framework about mGame based assessment to guide them in the English classroom because they are not too familiar with that and only learn from their teacher's friend. It can be said that teachers need to be trained and get more exposure with the mGame based assessment because they agreed that mGame in teaching could be as a reward or a tool to achieve English teaching-learning objective in ELT context. In contrast, the teachers did not know how to applied or design mGame space to accomplish this. Again, they are still not familiar with it.

5 Conclusion

In this research, the aim was to find out about the teacher's perception of mobile game-based assessment in the English Language Teaching (ELT) context. Based on the data and analysis, it can be said that the teachers have positive perception of mGame based assessment but still unfamiliar with it. It will be good if the government gives the training or seminar about mGame or digital games for the teacher because they are still confused and doubted to apply it in their English classroom because of some reason. Finally, further and more in-depth analysis will give better insight into mGame based assessment. These findings can support new research about the implication of mGame based assessment.

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The Use of YouTube Video toward Students' Listening Ability

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Abstract. This study was focused on identifying the influence of YouTube videos, as a listening learning media. It is believed that the audio visual mode may improve students' listening ability, and make listening more interesting. In this study, pre-experimental quantitative, with one group pre-test post-test, was applied. This research design was intended to analyze students' listening ability both at the initial, and final part. The subjects of this study were 23 undergraduate students of English Department, University of Lampung, taken from pre intermediate listening class. After the calculation of Paired sample t-test, it was found that the result of the two tailed significance was 0.000. Therefore, it can be concluded that there is significant influence of using YouTube videos toward students' listening comprehension. Regarding students' perception toward the use of YouTube videos, a survey in the form of a questionnaire was also distributed to all 23 students. The results showed that all participants assumed that using YouTube videos made listening class more encouraging.

Keywords: Listening, YouTube, Video

1 Introduction

Listening is one of the hardest skills in English especially for students with low competence [1]. Listening will become more difficult if the conversation recording is made by the native speaker which has different accent and speed. Listening is also considered as boring subject since students only listen to the conversation recording again and again. Furthermore, most of conversations used in listening contain topic or issue which are not new and not suitable with students in Indonesia.

Lately, invention of technology makes listening able to be taught not only through audio media but also through audio-visual media like video. In fact, [2] in his research stated that the process of classroom activities will be more efficient if visual media are involved as 11% from the given material occurs through sense of hearing, and 83% through the seeing devices of human beings. From that research, audio-visual media like video is very suitable in teaching listening to make the teaching and learning more effective and easy.

Through video, especially YouTube video as the largest video provider on the internet, it can increase students' listening understanding, and it also can develop a variety of the newest topic or new issue [3]. Beside that, video also allows students to recognize mimic and

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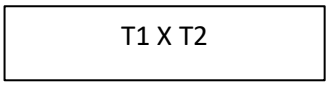
gesture/movement from every speaker in conversation [4]. Several studies have been done related to students' attitude toward the use of YouTube video in teaching listening.[5] and [6] investigated students' reactions on the application of YouTube audio-visual mode. It showed that the students have a positive attitude toward the utilization of YouTube in the classroom. The study found that not only students' eagerness improved but also their cooperation to be involved in class activities. Furthermore, [7] revealed that students have assumed that any listening task conducted by involving YouTube made the learning itself encouraging. In line with [8] research which discovered that students were encouraged in learning English listening after YouTube videos were utilized in the listening classroom.

From the previous research above, it shows that teaching listening by using YouTube makes learning become more interesting and students become motivated. However, it is rare to find the study which focuses on students' listening comprehension after being taught by using YouTube videos. Therefore, this research will find out: 1. How is the influence of YouTube video toward students' listening comprehension?; and 2. How is the students' perception toward teaching listening by using YouTube video?. This research is carried out for the advancement of students' listening teaching and learning in the latest teaching media. In addition, it is also expected to improve students' listening comprehension and make teaching and learning listening more enjoyable.

2 Method

A quantitative pre-experiment with one group pre-test and post-test design was employed in this study. This design was chosen as this study involved only one class, where listening ability of the students assessed at the beginning and at the end. The findings included the results of listening pre-test and post-test, and responses to a set of questionnaire of 23 students.

The procedure of data collection was started by administrating pre-test to the students of Pre-intermediate Listening Class. After that, video lesson by optimizing YouTube as main source was applied. Finally, to assess the listening skill after the students were taught using YouTube videos, post-test was given. The results of pre-test and post-test were compared to see the significance of YouTube videos in listening class.



T1 referred to pre-test that was administered before the video class treatment, X referred to the treatment application conducted by the researcher using YouTube videos to teach, in order to improve listening ability [9]. T2 referred to post-test to see the result after the treatment.

2.1 Participants

Undergraduate students of Pre-intermediate Listening Class in English Department Unila were participated in this research. 23 students were taken to participate in this study. This study involved cluster sampling to choose the participants. According to [10] cluster sampling involves grouping process of a population. This sampling technique also focuses more in involving the group as a whole unity rather than identifying each individual in the chosen

group. This technique is very relevant to the setting of this study, since the participants were a group of students that had been clustered into several groups in a system organized by the institution.

2.2 Instruments

1. Listening Test

A listening test was administered to obtain the data from the students ,. There were two tests, the pre-test and the post-test that the results were compared to see the significance of the treatment.

2. Questionnaire

The questionnaire consisted of 9 items that are intended to identify students' perception regarding the application of YouTube videos in listening class. The questionnaire was a likert-scaled-design with the scales of 1(strongly disagree) to 5(strongly agree).

2.3 Data Analysis

The data of the tests results were analyzed using SPSS by firstly inputting the scores to Excel spreadsheet. The overall scores of both pre-test and post-test were calculated to see the significance of the use of YouTube videos. For the questionnaire responses, the data was given in the form of chart and percentage of different responses of each item.

3 Research Findings and Discussion

In this research, the researchers administered a pre-test before the treatment and a post-test after the treatment. The aim was to find out whether there was any significant improvement of students' listening comprehension after the implementation of YouTube videos. Paired Sample T-Test in SPSS 20 version was used in analyzing the data of the tests. Based on the result of the pre-test, it can be clearly seen that the students' score ranged between 60-86. The mean score of the pre-test was 76.65, with the lowest score was 60 and the highest one was 86. On the other hand, the range of students' score of post-test lies between 76 - 96. It shows that the minimum score of post-test is 76 and the maximum one is 96, while the average score is 82,04. Therefore, it can be justified that students' score in listening comprehension improved after the implementation of treatment.

Moreover, the normality test was used to make sure whether the data of the test were distributed normally. The researchers utilized One Sample Kolmogorov-Smirnov Test with SPSS 20 for Windows. The description of the normality distribution result explained in the table below:

Table 1. Normality Test

Kolmogorov-Smirnov Test (One Sample)	
	Unstandardized Residual

N		23
Normal Parameters[a,b]	Mean	0E-7
	Std. Deviation	4,65793581
Most Extreme Differences	Absolute	,159
	Positive	,159
	Negative	-,108
Kolmogorov-Smirnov Z		,764
Asymp. Sig. (2-tailed)		,604

According to the table above, the data were normally distributed since the significance value (2 tailed) is higher than 0,05 (0,604). After the data had been distributed normally, hypothesis testing was conducted. It was used to prove whether the hypothesis proposed by the researcher was accepted or not. To examine the hypothesis, the researcher used statistical computation Paired Sample T-Test SPSS 20 version for Windows.

Table 2. Paired Sample Statistics

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRE TEST	76,6522	23	6,35044	1,32416
	POST TEST	82,0435	23	5,40604	1,12724

Table above presents the mean scores of students' listening comprehension in both pre-test and post-test. The mean score in pre-test is 76.65 while the mean score in the post-test is 82.04. It means that the mean score gained 5.39. To see whether the influence was significant or not, the result of paired sample t-test is explained in the following table:

Table 3. Paired Sample T-Test

Paired Samples Test								
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre-Test - Post-Test	-5,39130	5,89097	1,22835	-7,93875	-2,84386	-4,389	22	,000

The table shows that the significance value (2 tailed) is 0.000. It indicates that the influence is significant since 0.000 is less than 0.05 (0.00 < 0.05). It means that H_0 is rejected, while H_1 is accepted that there is significant influence of using YouTube videos on students' listening comprehension. Therefore, it can be concluded that there is significant influence of using YouTube videos toward students' listening comprehension.

The finding of this study is in line with another previous study from [11] who investigates the effectiveness of using YouTube toward Students' listening comprehension skills. The design of the research is quasi experimental design with experiment and control group design. The result showed that using YouTube had indeed enhanced Saudi EFL students' listening comprehension performance. After watching videos, the experiment group which is given the treatment by using YouTube video performed better than the control group in the post test which indicated their improvement in listening comprehension.

Moreover, this study has positive correlation with another previous study from [12] with the title Improving the Listening Skill of The Eighth Graders of MTs Negeri Jember II Using YouTube Internet Site. The method of her research is collaborative classroom action research. After conducting the study, the researcher found that the use of YouTube Internet sites can improve the students' listening skill. The improvement can be known by the increased score of the students' listening comprehension cycle 1 and cycle 2 The average score in Cycle 1was 69,4 while the average score in the end of implementation (cycle 2) of this study was 78.1.

Concerning students' perception of listening class with YouTube videos, all of the students were asked to fill in the form of a questionnaire after the lessons were completed. The result showed that all students believed that using YouTube videos made listening class more interesting (**Figure 1**).

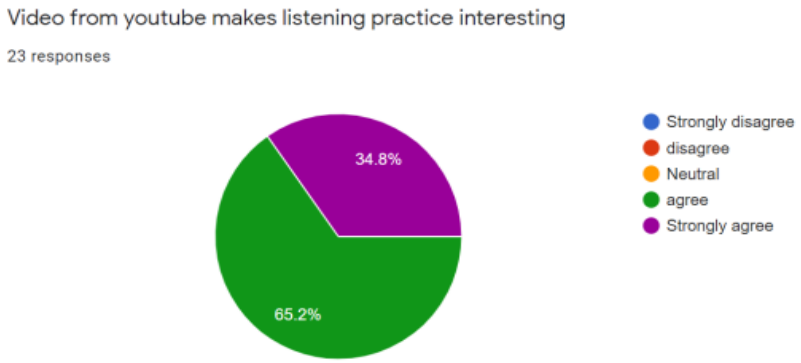


Fig 1. Student's perception 1

Based on the chart above, the questionnaire shows that 65,2% agree and 34, 8% strongly agree that Video from YouTube makes listening practice interesting. It means that all students agree that listening to the classroom is more interesting after being taught by Video from YouTube. This finding is in line with [13] who stated that YouTube videos not only generate

interest in the lesson but also explore students' imagination and make learning fun and meaningful.

Furthermore, 91% of the samples assumed that YouTube videos helped them to understand the lesson better when listening to English conversation. It means that the meaning of the recording/conversation is easier to be comprehended after being taught by Video from YouTube. This finding is in line with [14] who stated that through videos, students were supported by conceptualization and visualization, provided them memory cues and connections, and clarified understanding. These students listening conversation understanding are helped by the gesture and mimic of the speaker contained in the video from YouTube.

Next, 87% of respondents thought that YouTube videos gave contextual examples that could relate to real life situations. This occurred because the use of YouTube video provide students with variations of conversation that relate to real life context such as phone call conversation, book hotel conversation, shopping conversation, etc. This finding is in line with [15] who stated that YouTube videos can show students the real-world examples of material and theory covered in class.

On the other hand, almost all students, 60% responses, say that Video from YouTube does not help students to get a better understanding of associated cultural aspects. This happened because the video from YouTube that the researcher gave to students contained more global and universal contents. So, the video from YouTube that contains cultural aspects is not too purposely given. Further, 45% responses did not agree that Video from YouTube helps them in understanding vocabulary and idiomatic expression in the recording/conversation. This might be because there is no further explanation and discussion by the researcher about the idiomatic expression contained in the YouTube video.

4 Conclusion and Suggestion

4.1 Conclusion

Based on the result of the test, there is a distinguishable impact of using YouTube videos toward students' listening ability. After analyzing the result of the tests and the questionnaire, the researchers find that the result of the listening ability of the students based on the test shows that most of the first year students of University of Lampung have significant improvement in the score of post test than pre test. It is shown that the mean score in pre-test is 76.65 while the mean score in the post-test is 82.04. It means that the mean score gained 5.39.

Furthermore, the result of the table shows that the two tailed significance is 0.000. It indicates that the influence is significant since 0.000 is less than 0.05 ($0.00 < 0.05$). It means that H_0 is rejected, while H_1 is accepted that there is significant influence of the use of YouTube videos on students' listening comprehension.

Taking closer look at the questionnaire responses, based on the result of students' assumptions of listening class with YouTube audio-visual mode, all students agree that YouTube videos provide more excitement and encouragement in listening class. Further, 91% of the samples agreed that YouTube videos aided them to understand better when listening to English

conversation recording. Next, 87% of respondents believed that YouTube videos gave real-life examples that could relate to actual situations on a daily basis. On the other hand, 60% of responses said that Video from YouTube does not help students to get a better understanding of associated cultural aspects.

4.2 Suggestions

Considering the positive result of YouTube videos in listening class, the researcher suggests that English lecturer/teacher should apply the use of YouTube videos in their listening class or other classes such as speaking class. It is also suggested that to find out the problem happened in the classroom when using YouTube video in order to make the learning and teaching process run smoothly. For the further researcher, it is also suggested that to conduct a research of the use of YouTube video in other classes like speaking class. It is suggested to have further research concerning the students' perception toward the use of Youtube video in other classes such as speaking class.

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Comparative Study of Digital literacy in Language Learning among Indonesian Language Education and English Language Education Students in the New Normal Era

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Abstract. The impact of the pandemic of Covid 19 forces students to stay on top of online learning. Technology with reasonable sophistication can be used better by English education students than Indonesian Language Education students because, in addition to language acquisition, information and applications in digital are generally English-speaking and are more numerous and easily obtained. This study aims to describe digital literacy in language learning among Indonesian Language Education students and English Language Education students in the new normal era. This research is a quantitative descriptive study with qualitative data verified in the form of a percentage. The data was obtained using Google forms for each of 100 students (200 samples) in Java and Sumatra randomly and by purposive sampling. The instrument uses closed questions with a Likert scale (five options) and open questions. Research results show that digital literacy in language learning among Indonesian Language Education students and English Language students in the new normal era is not significantly different, at the same level. Digital literacy in language learning is at level 4, that is, students have been able to improve significantly (quantitatively stated) the performance of daily life activities through the use of information and technology with an average bind of 3.59 (71.8%) and bind 3.46 (69.2%). It shows that learning in networks has increased students' mastery and digital literacy abilities.

Keywords: comparative study, digital literacy skills, language learning

1 Introduction

Learn from each student's household to be more skilled and able to carry out effective and efficient learning. It has been done by students during the covid 19 pandemic from March 2020 to the present. Various problems arise in learning online, such as poor network conditions, inadequate facilities, inadequate internet quota, and many given tasks, until starting to feel bored with learning online. Several students utilizing the mobile learning faced some difficulty, such as the limitations of internet networks both on campus and at home, limited language learning software, ignorance of learning application examples in mobile learning, and the intensity of lecturers and students synergizing in learning a language online. less [1]. On the other hand, there are many positive things found in this bold learning, such as increasing students' skills in using technology, varied learning styles, increasing student insights and knowledge, and reducing the spread of covid 19 to be reduced.

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Several studies on digital literacy, including research conducted a web-oriented digital literacy survey as a proxy to observe skill size with a large sample. The results suggest that multiple combined variables of the survey knowledge items are better predictors of a person's actual digital literacy based on a performance test than a measure of users' self-perceived ability, a proxy traditionally used in the literature on the topic [2]. [3] There is a mismatch between institutional goals and teacher and student beliefs and practices regarding the role of technology in the curriculum. Teachers are more familiar with the software, while students are more comfortable with websites. Teacher-centered learning and paper-based learning practices. [4] That students had a statistically significant growth in information literacy competencies and critical thinking skills in learning in the digital space. [5] That there is a strong and significant relationship between digital literacy and lecturer research productivity. [6] His research offers an in-depth study of the concept by analyzing the main models of digital literacy in an international context to offer a holistic model that combines the contributions of all initiatives. His research that students' understanding of digital literacy was good and there was a perfect positive relationship between understanding digital literacy and the originality of student writing [7]. Some of these studies reveal that normal conditions in the use of technology in learning and research can improve digital literacy skills. It is different when the use of technology in conditions that do not usually require students to use technology in learning during the Covid 19 period. That is what researchers want to express in this survey research, especially for language education students, both English and Indonesian.

Mastery of technology, in this case, digital literacy for students is not new but has become a need and habit of students with its era. Sophisticated technology and facilities make students pampered in accessing and using digital in their learning. Various applications are provided, including social media, e-learning, science pages, online libraries, and various national and international research articles. [8] Information technology, especially those that prioritize visual aspects, can improve language skills more effectively. Language facilities are an entry point for digital access and use, but this is not an obstacle or difficulty for students since they can be used in various languages, both English and Indonesian. However, applications contained in digital literacy are still dominated by using English. For this reason, in this paper, the author wants to reveal the digital literacy skills of English and Indonesian students in seeing the comparison during the COVID-19 pandemic.

Digital literacy is a complex and integrated framework between sub-disciplines, namely, skills, knowledge, ethics, and creative output in a digital network environment [9]. These sub-disciplines include information literacy, computer literacy, media literacy, communication literacy, and visual literacy. Digital literacy is the instrument in technology, while normative media education literacy is more in accordance with the field and needs, such as teaching digital language literacy related to language, information, connections, and redesign. Language is related to print literacy, text literacy, hypertext literacy, visual media and multimedia literacy, game literacy, cellular literacy, code, and technology literacy. Information related to search literacy, information literacy, tagging literacy. Connections relate to personal literacy, network literacy, participatory literacy, cultural and intercultural literacy. The redesign is related to remix literacy. Digital literacy is divided into two, namely "instrumental-technology" and "normative media education," each related to usage/function, and pedagogical goals [10]. It is divided into three competencies: (a) Interpreting messages; (B) Selecting messages; (c) Articulate the message. These competencies inform the goals and measures of functional, cognitive and ethical skills.

Digital literacy as a combined force and a non-quantifiable, but more flexible, skill for analyzing, selecting, and critically evaluating data and information, to exploit potential

technology to represent and solve problems and build shared and collaborative knowledge, while cultivating awareness of one's responsibilities personal responsibility and mutual respect for rights/obligations [11]. It shows that digital literacy does not have to be a linear process, nor does it root only in specific tasks. [12] Digital literacy as the integration of five separate but interrelated literacy skills: (a) photo-visual literacy; (b) reproductive literacy; (c) information literacy; (d) branching literacy; and (e) socio-emotional literacy.These skills are presented as expressions of a culturally distinct epistemology, with a set of skills that shape different learning styles and personality types. It can be formulated that digital literacy skills are based on an understanding of digital practice; searching for information; using information; making information; endogenous motivation; exogenous motivation; operating digital devices; searching, selecting, and evaluating information, using computers and the internet; using computers and the internet to achieve goals; digital engagement; supports learning practices ([13]; [5]). Based on this, the author wants to compare the students' digital literacy skills in both English and Indonesian education.

2 Methodology

This research is a quantitative descriptive. Quantitative descriptive explains the existing phenomena by using numbers in quantity and quality by describing the characteristics of individuals or groups of students [14]. Quantitatively, the research data were obtained through instruments developed from students' digital literacy skills. Digital literacy competence to identify digital literacy skills and digital abilities of students consists of 11 indicators: understanding digital practice; searching for information; use information; making information; endogenous motivation; exogenous motivation; operating digital devices; searching, selecting, and evaluating information using computers, and the Internet; using computers and the Internet to achieve goals; digital engagement; supporting learning practices. These eleven indicators were developed into an instrument in research data collection, consisting of 75 questions.Each statement in this instrument has five options to choose, on a Likert scale, namely 1 (TP = never), 2 (P = never), 3 (J = rarely), 4 (KK = sometimes), and 5 (S = often). The data results are interpreted based on the ability criteria of each dimension and level in the following table.

Table 1. Capability Criteria for each Dimension

Interval	Criteria
1,00 – 1,80	Very Low, Very Less
1,81 – 2,60	Low, Less
2,61 – 3,40	Moderate, Enough
3,41 – 4,20	High, fine
4,21– 5,00	Very High, Very Good

The determination of digital literacy abilities relies on the Personal-Capability Maturity Model Theory [15]. It means that if an individual does not know or care about the importance of the information and technology for everyday life (level 0); If an individual has had one or two experiences, in which the information is an important component for achieving desires and problem solving, and has involved information technology to search for it (Level 1); If an individual has repeatedly used technology to assist daily activities and already has a repetitive

pattern in its use Level 2. If an individual already had a standard of mastery and understanding of information and technology needed, and consistently uses these standards as a reference for implementation daily activities (Level 3); If an individual has been able to significantly increase (can be stated quantitatively) the performance of his daily life activities through the use of information and technology (Level 4); If an individual has considered information and technology as an inseparable part of his daily activities, and directly or indirectly has colored his behavior and culture (part of information society or information cultured human beings) (Level 5).

3 Results and Discussion

The instruments used in collecting this data are obtained from 200 research samples with 100 samples from English education students and 100 students from Indonesian language education. The students come from two state universities in Java and two public universities in Sumatra. The data source's determination is based on the location that is considered representative of each area in urban and regional areas. It is because Indonesia is an archipelago, and not all of them come from regions with the same conditions. This research data was taken for about a month during July 2020 via Google Form, which was sent through groups of Indonesian and English lecturers. Then the lecturer passed on the data to students through the class leader. The questionnaire distributed around July is considered a student learning activity while studying from home because the covid 19 pandemic was carried out for approximately 3 or 4 months in even semester 2020. The results of the research and discussion can be seen in the description below.

Table 2. Comparison of Digital Literacy Abilities

No	English Education Students			Indonesian Education Students	
	Dimensi	**Average**	**Information**	**Average**	**Information**
1	Understanding of digital practice	3,11	moderate	2,93	moderate
2	Searching for information	3,49	High	3,29	moderate
3	Using information	3,42	High	3,18	moderate
4	Create information	2,99	moderate	3,10	moderate
5	Endogenous motivation	3,65	High	3,53	High
6	Exogenous motivation	3,67	High	3,57	High
7	Operate digital devices	3,57	High	3,46	High
8	Search, select, and evaluate information	3,79	High	3,60	High
9	Using computers and the Internet	3,92	High	3,76	High
10	Engagement using digital	3,89	High	3,79	High
11	Support learning practice	4,24	Very High	4,02	High
	Average	**3,59**	**High**	**3,46**	**High**

Table 2 shows that English students' digital literacy skills are high, with an average of 3.59. The indicators of English students' digital literacy skills are stated to be high, seen based on the following 11 indicators, from high to medium. Indicators of high digital literacy skills, namely supporting learning practices (4.24), using computers and the internet (3.92), engaging using digital (3.89), searching, selecting, and evaluating information (3,79), motivation exogenous (3.67), endogenous motivation (3.65), operating digital devices (3.57), and looking for information (3.49), and using information (3.42), while digital literacy skills are moderate,

namely understanding digital practice (3.11) and making information (2.99). They indicate that digital competence among students is very important in supporting the effectiveness and quality of learning from home. That means a lecturer is also very important to maintain the effectiveness of learning so that the students can be more effective in utilizing technology [16].

The indicator of digital literacy skills of Indonesian students is high with an average of 3.46, which is also seen based on the following 11 indicators, from high to moderate. High indicators of digital literacy skills, namely, supporting learning practices (4.02), engaging using digital (3.79), using computers and the internet (3.76), searching, selecting, and evaluating information (3.60), exogenous motivation (3.57), endogenous motivation (3.53), operating digital devices (3.46), and looking for information (3.29), while digital literacy skills are currently seeking information (3.29), using information (3.18), making information (3.10), and understanding digital practices (2.93). It shows that high literacy requires positive synergy from institutions or universities so that students' digital literacy skills remain high or survive and even increase in digital literacy skills in the future. [17] The concept of higher education digital literacy consists of many levels ranging from knowledge to use, and critical, creative, and collaborative use. Second, the university plays an important role in developing the digital literacy level of its students and lecturers. Third, social media platforms play a large role in various learning objectives but must identify their professional development needs.

Based on table 1 above, it shows that there is no significant difference between students' digital literacy skills in English and Indonesian. English and Indonesian students' digital literacy skills are in the same category, namely the high category or level 4 in their digital literacy skills. It means that students have improved significantly (it can be stated quantitatively) regarding the performance of their daily life activities through the use of information and technology. However, among 11 aspects of the students' digital literacy skills need to be improved, especially in understanding digital practices and making information for English Language Education students. In comparison, Indonesian Language Education students still need to improve their digital literacy skills in terms of these two aspects: added aspects of seeking information and using information. In general, students' digital literacy skills with working from home during COVID 19 have provided positive digital literacy skills for students. It can be seen in the following graph that there is no significant difference between the two.

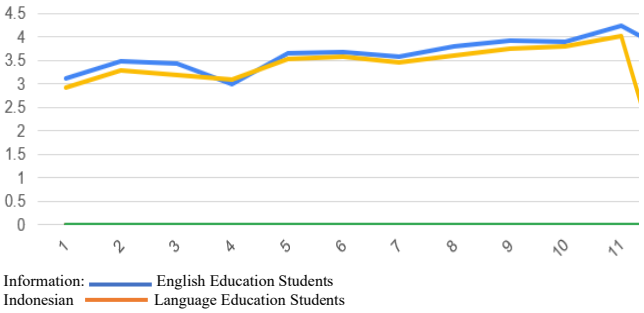

Fig 1. Student Digital Literacy Ability

Different environments do not make different literacy skills, but conditions supporting digital literacy make students better. It is the impact of the covid 19 pandemic in which the students learn from home. This condition did not immediately leave them to take advantage of technology and maximize learning through the network. The influence of the city and the region does not significantly affect students' digital literacy skills. It shows that digital literacy skills

are not only seeing how using technology can benefit all education levels. In addition, there must be sufficient funds for digital literacy programs, in this case, universities or the government in maximizing student digital literacy [18].

Based on the results and discussion, it shows that evidence of language acquisition does not really affect a person's digital literacy. This can be seen from the level of mastery of digital literacy, both English and Indonesian students are at the same level, which is good. This is also in accordance with the results of research conducted the English students he studied regarding mastery of digital literacy were in good control. The level of understanding that students have is very normal because almost all students were born in 2000, which means they are the netizen or digital native generation [13]. This generation has worked and used digital tools for their lives since childhood. Digital native can be interpreted as a generation that develops in the digital era. They can think, and find information that is bigger, different, and in people who are older than them, it is the effect of a higher digital environment and interactions [19). According to research conducted also shows that adult students have a higher understanding of digital literacy which varies in skills according to their interests and learning styles [20].

4 Conclusion

Good environmental conditions will support and enhance good learning too. Students experience this both in English and Indonesian language education because the covid 19 pandemic forces them to study from home and has been able to improve students' digital literacy skills with good results or high categories. The results of this research show that there is no significant difference in digital literacy in language learning in Indonesian Language Education students and English Language Education students in the new normal era, being at the same level. Digital literacy in language learning is at the level (3.41–4.20), that is, students have been able to improve significantly (can be expressed quantitatively) the performance of their daily life activities through the use of information and technology with an average bing of 3.59 (71.8%)) and bind 3.46 (69.2%). It indicates that online learning has improved students' mastery and digital literacy skills. However, the aspects of English education students' digital literacy skills still need to be improved, especially the aspects of understanding digital practices and making information. Indonesian Language Education students in these two aspects still need to improve their digital literacy skills, which is added to finding information and using information. It means that English Education students have a 2.6% higher digital literacy ability than Indonesian Language Education students. In the future, students must be more creative and innovative in implementing digital literacy in language learning. It requires wider access to emphasize more specific aspects of the model, such as cross-cultural, interactional, critical listening, and the contextual dimensions of its development [21].

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The Development of Arcs-Based Economics E-Book for Grade 11 of Senior High School

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Abstract. This study aimed to investigate the appropriateness of an ARCS-based economics e-book on international trade topics specifically developed for grade 11 (social study program) high school students. The focus was on the experts' assessments and students' responses to the e-book. This study adapted Borg and Gall's learning media development model into 10 stages: (1) research and information collection, (2) planning, (3) developing preliminary e-book form product, (4) preliminary trials, (5) first revision, (6) main trial, (7) second revision, (8) operational trial, (9) third revision, and (10) dissemination of research. The researchers obtained the data using validation and questionnaire sheets and then analyzed the data descriptively. The results showed that the expert team rated the ARCS-based economics e-book's appropriateness as very high. The media expert gave an average score of 93.75%, the content expert gave 88.09%, and the linguist gave 100%. Moreover, students also gave positive responses with an average score of 76,11%). It can be concluded that the development of an ARCS-based economic e-book for class XI SMA is appropriate for use in the learning process.

Keywords: e-book, economics, ARCS, development, student.

1 Introduction

The rapidly developing science and technology shape all aspects of life, including education. Developments in education stimulate various innovations which incorporate technology in learning activities. The global generation becomes increasingly aware of the technology to expand knowledge [1]. This is a great potential that teachers should maximize to carry out the learning process effectively. Learning is an activity that constitutes communication between teachers and students. The ongoing learning process has encountered several obstacles. One should utilize appropriate learning media to overcome obstacles.

Learning media resources obtained from the development of technology in learning activity [2], is one of the supporting components to achieve the learning goal. Using learning media helps teachers deliver material easily and increases students' learning motivation and mastery of subjects taught. Teachers mostly used textbooks, modules, and PowerPoint slides as learning media. These media have a common limitation, that is these media are less practical to use. The learning media limitation opens opportunities for the use of technology in learning activities.

Digital technology develops rapidly as in mobile phone or smartphone case. Humans' needs for instantaneous and fast communication and problem solution drove the emergence of smartphones. Over time, the smartphone designs become increasingly sophisticated and it slowly replaces computers and laptops commonly used for work. Smartphone is a helping powerful tool to support humans' work. Nowadays, most people have a smartphone.

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Indonesia has the third-largest smartphone users in Asia Pacific with 83.18 million users in 2018. The development of smartphone in Indonesia was phenomenal, especially in the last five years. Not only adults but also adolescents use smartphones. Users use smartphone as learning, entertainment, communication, and business tools. In education sector, for example, many smartphone applications have been created specifically for students and learning purposes.

Students use smartphones only to access social media [3]. However, the use of smartphone is not only limited to social media networking. It has a positive impact in accelerating the process of finding information in learning activities. Students can easily find the information they need using smartphone. However, students' use of smartphone also brings negative impacts including game addiction, unknown connections via social media, and access to inappropriate content in the internet.

Using smartphone as a learning media can reduce the negative effects of using smartphones on students. Learning media plays an important role in the learning process; it acts as a source of independent learning for students and a means to facilitate learning for teachers [4]. The use of smartphone as a learning media can be seen for example in digital books or e-book (electronic book). E-book is a digital textbook containing text, images, and videos, which can be read on electronic devices [5]-[6]. Text, images, and videos can enhance the impression e-book. E-book is the latest technological breakthrough which will replace printed books in the prospective and advanced future [7].

An e-book has several benefits, including (1) it is easy to use anytime and anywhere; (2) the digital file is durable and difficult to rot; (3) it is possible to preserve a larger number of book references; (4) it can increase readers' learning satisfaction [8]-[9]. Students recognize the benefits of e- book and e-book is recommended in a learning environment [10]. The development of e-book is inseparable from its use e-book as a learning media.

Senior high school in Indonesia (hence abbreviated as SMA) is grades 10-12 of formal secondary school which aimed at producing educated graduates and preparing students to pursue higher education. There are eight public SMA (SMA negeri) and 20 private SMA (SMA swasta) in Surakarta. Of these schools, private SMA Al Azhar Budi Syifa Surakarta is formal secondary schools in Surakarta noted for their academic and non-academic achievements in natural science (IPA) and social sciences (IPS) programs. Indonesian senior high schools offer economics lessons, which in part discuss the basics of economics. For examples, one of the topics discussed in grade 11 economics lesson for IPS program is international trade. To successfully master the lesson and complete the assignment, students must understand some international trade theories.

The economics teacher interviewees suggested that they still utilized printed books from libraries that students borrow to study economics lesson. The printed book is not easy to carry anywhere, and the content is difficult to understand. This situation decreases students' learning motivation, which may lead to lower learning outcomes. It contradicts the learning objectives comprising students' high learning motivation and good learning outcomes. Since the learning processes in both schools allow students to use smartphones, the researchers wanted to make a breakthrough by developing a smartphone-mediated learning media in the form of an e-book.

The process of developing e-book as learning media can be integrated with learning models, such as Attention, Relevance, Confidence, and Satisfaction (ARCS) learning model. ARCS model is an approach to problem solving in learning that is designed using a motivational component and is directed to provide encouragement to students [11]. Students can build preliminary knowledge to understand new material used to solve a

problem in the learning process using ARCS model [12]. The ARCS model can improve students' learning motivation and learning outcomes [13]. The ARCS-based e-book can increase students' attention and improve their self-confidence in learning [14].

Some previous studies seemed to confirm the findings. Mawaddah investigated students' LKS and found that the development of students' worksheets (LKS) with the ARCS strategy can improve their learning outcomes [15]. Similarly, Suwartini and Fujiastuti revealed that the creation of ARCS-based textbooks can improve students' critical and creative thinking skills [16]. Lastly, Fadilah *et al.* found that the use of ARCS-based modules can motivate students to learn independently and easily understand the material taught [17].

These literature and previous studies have showed that the ARCS model can increase students' participation, motivation, and learning outcomes. Therefore, the researchers is interested to investigate whether the use of an ARCS-based economics e- book in teaching and learning processes. The question is how to develop an ARCS-based economics e-book that is suitable for learning process.

2 Research Method

This research was a development research aimed to produce an ARCS-based economics e-book that is ready for use in the learning process. Sugiyono's model of developmental study design, which based on Borg and Gall's model was adapted in the current study. Sugiyono proposed 10 stages, namely (1) research and information collection, (2) planning, (3) developing preliminary e-book form product, (4) preliminary trials, (5) first revision, (6) main trial, (7) second revision, (8) operational trial, (9) third revision, and (10) dissemination of research [18]. The current study was conducted from May to August 2020. The subjects of the study were grade 11 (senior high school) students in Surakarta. The samples were taken from private high school SMA Al Azhar Budi Syifa Surakarta.

In the preliminary stage, the researchers conducted a literature study to find supporting theories and a field study by means of student interview and questionnaire to collect in-depth information as the basis for the main research. In this stage, the researchers distributed questionnaires and interviewed students to obtain valid data. The data collection techniques used in the main study included observation, interview, questionnaire on learning media development, expert validation, and documentation.

The researchers employed quantitative and qualitative analyses. The interview, observation, and documentation data were examined using qualitative descriptive analysis. The other data, including expert team validation and questionnaire data were analyzed using quantitative descriptive analysis. The researchers employed an experimental design for the effectiveness test, namely the pre-test, post-test, and control group designs. The collected data were processed using SPSS software.

3 Result and Discussion

3.1 Preliminary study

The preliminary observation of the learning process at three senior high schools in Surakarta, (SMA Al Azhar Budi Syifa Surakarta, SMA Negeri 5 Surakarta, and SMA Negeri 3 Surakarta), showed three main findings. First, teachers had problems in using learning media

based on learning models; (2) teachers had difficulty in allocating time during the learning process; (3) teachers had not applied an appropriate learning model to enhance students' learning motivation; (4) the learning media used did not include e- books based on the learning model in school; and (5) teachers tended to use library textbooks and student worksheets (LKS) to deliver subjects. The preliminary teacher interviews suggested that it is necessary to create an economics e-book based on the ARCS model to facilitate economics learning.

An e-book was created under the school curriculum and the ARCS (Attention, Relevance, Confidence, Satisfaction) learning model. The e-book cover, the material content, and the display are made as attractive as possible. Every introduction of chapter contains motivational reading to encourage students to learn and adjust with the basic competence, for example, international trade.

The e-book draft was developed following the ARCS learning model to make it easier for teachers and students to use. Afterwards, an expert team authenticated the e- book draft. Next, the researchers conducted a trial study to assess the appropriateness of the ARCS-based economics e-book and gain inputs and suggestions on the economics e- book. After several rounds of validations and trials, the ARCS-based economics e-book for grade 11 students was ready to use by .

The expert team's validations were aimed to assess the feasibility of ARCS-based economics e-book product. The expert team comprised media experts, content experts, and linguists. The expert team's suggestions were used as references to improve and enhance the ARCS-based economics e-book.

3.2 Media expert validation

The researchers undertook the media validation by distributing a questionnaire to members of the expert team. The media aspects measured were the visual and the technical aspects of e-book. The assessment results is displayed in Table 1.

Table 1. Results of media experts' validation

No	Aspect of Media Assessment	Scoring Scale				
		Σ *ni*	**Σ *N***	**100%**	**Score**	**Criteria**
1	Display	44	48	100%	91.87%	Very Good
2	Technical	31	32	100%	96.87%	Very Good
	Total Score	75	80	100%	93.75%	Very Good

Table 1 shows that media experts rated the ARCS-based economics e-book as a learning media very high (93.75%). The display aspect scores high (91.67%), so does the technical aspect (96.87%). The results show that the ARCS-based economics e-book has met the requirements of a learning media and is suitable media to support economics learning process. Students recognize the benefits of e-book and e-book is recommended in a learning environment [10].

3.3 Content Expert Validation

Content validation was carried out by distributing a questionnaire to the expert team. Table 2 displays the results of content validation.

Table 2. Results of content expert validation.

No	Aspect of Media Assessment	Scoring Scale				
		Σ *ni*	**Σ *N***	**100%**	**Score**	**Criteria**
1	Appropriateness of Content	42	44	100%	95.45%	Very Good
2	Appropriateness of presentation	34	40	100%	85.00%	Very Good
Total Score		76	84	100%	88.09%	Very Good

The content expert validation of the appropriateness of ARCS-based economics e-book showed that the content expert evaluated the appropriateness of content and presentation highly, respectively 95.45% and 85% (very good criteria). The average score is 88.09% (very good criteria). Thus, it can be concluded that the ARCS-based economics e-book is suitable for grade 11 students' economics learning.

3.4 Linguist Validation

Language aspects validated include conformity with the development of students' thinking skill, readability, ability to motivate students, straightforwardness, coherence and sequence of thought, and conformity with language rules. The results of the linguist's validation is shown in Table 3.

Table 3. Results of linguist's validation.

No	Aspect of Media Assessment	Scoring Scale				
		Σ *ni*	**Σ *N***	**100%**	**Score**	**Criteria**
1	Conformity with the development of students' thinking skill	8	8	100%	100%	Very Good
2	Readability	4	4	100%	100%	Very Good
3	Ability to motivate	8	8	100%	100%	Very Good
4	Straightforwardness	8	8	100%	100%	Very Good
5	Coherence and sequence of thought	8	8	100%	100%	Very Good
6	Conformity with language rules	4	4	100%	100%	Very Good
Total Score		40	40	100%	100%	Very Good

Table 3 shows that the use of language in the ARCS-based economics e-book obtains an excellent linguist validation (100%). The results indicate that the economics e- book is remarkable and thus suitable for use as a learning media.

Table 4. Validation team's advice.

Feedback	Response
Media Expert	
The media can be used for future research	Conducting another limited trial study
Content Expert	
The content needs to be further refined	Refining the content according to the curriculum, ARCS model, and students' needs
Linguist	

Typos should be double-checked	Typos are corrected according to linguist's advice

Table 4 shows media, content, and language experts' advice and the researchers' response. The researchers revised the e-book accordingly. The process was in line with Istifarida *et al.* who had developed an e-book which they found suitable for their students' learning [19].

3.5 Limited trial study

A limited trial was conducted to obtain student responses' on the ARCS-based economics e-book. Nine grade 11 students of SMA Al Azhar Syifa Budi Surakarta were recruited. The results of the trial study is shown in Table 5.

Table 5. Results of the limited trial study.

No	Aspect of Media Assessment	Scoring Scale				
		Σ *ni*	**Σ *N***	**100%**	**Score**	**Criteria**
1	Presentation	141	180	100%	78.33%	Good
2	Technical Quality	140	180	100%	77.78%	Good
3	Benefits	130	180	100%	72.22%	Good
Total Score		411	540	100%	76.11%	Good

The results of the trial study (n=9 students) showed that an overall mean score of 76.11% (good criteria). Students gave positive responses to the ARCS-based economics e-book. It can be concluded from the study that the e-book is suitable for use as an economic learning media and thus it can be applied to broader audiences.

4 Conclusion

The current study which employed expert team validation, supported by a limited trial study on students' perception (n=9), found that the ARCS-based economics e-book developed were suitable for use in economics classes. Using ARCS-based economics e- book could enhance students' learning motivation, stimulate students to learn independently, and improve students' learning outcomes.

5 Suggestion

Teachers should be able to develop learning media based on the learning model prescribed by the curriculum and students' situation. Teachers can improve the developed e-book and add materials according to the basic competency required. The use of ARCS- based economics e-book can assist students to understand the material taught better. The e-book is also expected to motivate students to search for other learning references actively because the ARCS model emphasizes students' learning motivation. In addition, the school principal should motivate and support teachers by organizing trainings to develop learning media based on students' needs. Lastly, future researchers should develop more innovative, creative, and communicative e-book.

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A Meta-Analysis: Utilization of E-Learning Interactive Media In Improving The Quality of Mathematical Learning

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Abstract. E-learning is a learning and knowledge tools which are carried out using computers or other electronic devices. This article is a study of several studies that discuss the use of e-learning interactive media as learning media in improving the quality of mathematics learning. This study uses a Meta-Analysis research design. In this research the database searching for international journals using semantic scholars and in searching for national journals using the search database google scholar. The studies to be included in the meta-analysis are determined based on 6 criteria and took 12 journal articles divided by 8 international journals and 4 national journals for sample in this study. Research results state that the use of e-learning media has a good impact on student learning. The benefits of using e-learning media as a learning tool where learning will become more interesting and can help students absorb the subject matter in more depth so that the quality of mathematics learning can be improved by using e-learning media.

Keywords: E-Learning, Technology, Learning Media, Quality of learning

1 Introduction

In the era of technological and scientific advancements, education is a means to the growth and development of the nation, so of course, education must follow the current development. Education plays an important role in creating quality individuals [1], so it is hoped that innovations in the world of education as a bridge in developing student creativity. Learning involves four components in it, such as teacher, students, environment, and media. The media are tools that mediate teachers in developing students' potential knowledge and attitudes [2]. The use of instructional media in the learning process is one way to improve the quality and effectiveness of the teaching and learning process which will ultimately be able to improve the quality of student learning outcomes [3]. Dynamic internet and computer learning media are considered to be very supportive when used in the teaching and learning process because the internet and computer learning media can explain the material better which the learning media can be loaded with a lot of material and real animations in visual or text form. can provide experience directly to students.

Most schools in Indonesia already have facilities and infrastructure of information and communication technology (ICT) available which are quite adequate, but only a few teachers use the computer-based learning media in the teaching and learning process. In general, the type of learning the use of e-learning is cheaper than conventional studies so that by

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remembering the benefits of technology, especially e-learning in teaching and learning mathematics, teachers are encouraged to use it in the classroom [4]. Based on the condition of schools in Indonesia that already support information and communication technology facilities, e-learning media is an alternative that can be used as a learning medium. So it is necessary to further research and analyze the benefits of e-learning in improving the quality of mathematics learning.

2 Method

This study uses a Meta-Analysis research design. Meta-analysis refers to the process of integrating the results of various studies to arrive at the synthesis of evidence [5]. This meta-analysis research is an analysis of several journal articles, this study is the result of previous research with similar problems so that we can find out the results and conclusions. Before taking several journals for analysis, the researcher first determines the titles to be discussed, then looks for journals related to the title in the search database and selects them. The search database used by researchers in searching for international journals for analysis, namely https://www.semanticscholar.org/ (semantic scholar) and in searching for national journals using the search database https://scholar.google.co.id/ (google scholar).

The search procedure to find articles related to the use of e-learning media in mathematics learning is to limit the search based on publication date, namely the last 5 years and with the keyword "Development of E-Learning media in mathematic". As a result, there are 84 articles in the semantic scholar search database and 16.700, in the google scholar search database. The studies to be included in the meta-analysis are determined based on the following criteria:

a) The study must be prepared between 2015-2020.
b) The study must be open to access.
c) Subjects that are mathematics subject and must be related to junior high school, high school, or university students.
d) Doing studies regarding the use of e-learning media in mathematics learning.
e) Development studies with a pretest-posttest control group model should be used in the study.
f) In the study, the experimental group should be taught using interactive e-learning media and the control group should be taught based on traditional methods.

So from the above criteria, the researchers took 12 journal articles divided by 8 international journals and 4 national journals to be used as references in research on the use of interactive e-learning media in improving the quality of mathematics learning.

The procedure in this study was adjusted to the steps of conducting a meta-analysis suggested by David B. Wilson and George A. Kelley [6], namely: (1) Determine the problem to be studied. Topics or problems studied in the research to be carried out are the use of interactive e-learning media in learning mathematics; (2) Looking for research articles related to the topic or problem to be researched. The search was conducted from two sources, namely international journals and national journals; (3) Limiting the time span of the results of the articles that will be the source of research data. The period of research articles in this research is from 2015-2020 (4) Read the title and abstract of the research article that has been searched and see the suitability of the article content with the problem to be studied; (5) Focusing research on problems, research methodology such as the type of research used, time and place

of research, sample and population, techniques in analyzing data and in sampling, as well as research results; (6) Comparing the findings of all studies in the article according to the results obtained; (7) Analyze the conclusions found by examining the results of the study by examining the methods and data analysis in each study so that the advantages of each study can be identified; (8) Conclude the meta-analysis based on steps 6 and 7 above.

3 Findings and Discussions

3.1 Quality of Learning

Quality of learning can be interpreted as the level of success in achieving a goal made by teachers and students in an effort to achieve optimal learning outcomes in learning. In general, the quality of learning can be observed through the achievement of learning outcomes pursued by students [7]. Daryanto states that the quality of learning is the level of achievement of learning objectives, the achievement of these objectives in the form of increased knowledge and skills, and the development of attitudes through the learning process [8]. The quality of learning in the 2005 Global EFA monitoring report has several core components, namely: what students must learn, where learning takes place, how learning takes place, and what is learned [9]. The Student Evaluation of Educational Quality Questionnaire (SEEQ) describes educational quality instruments into eight characteristics, namely: learning or academic values, instructor enthusiasm, organization or clarity, scope, group interaction, individual relationships, assignments or readings, and examinations or assessments [10]. So the quality of learning refers to the knowledge generated as a process of social construction using shared understanding and working together, as well as results that arise from a learning process [11].

3.2 Background of E-Learning in the current era

World Health Organization (WHO) declared a global pandemic of COVID-19 on March 11th, 2020 which affected 213 countries and regions [12]. In response to COVID-19, several countries have implemented strict social distancing measures and lockdown policies. Entering the middle of March, which is March 16th, 2020 Indonesia implemented physical distancing in the face of the Covid-19 pandemic and this was enforced in all provinces in Indonesia, which eventually led to many schools being closed, thus making students study and have activities at home. Learning activities that must still be carried out between educators and students in facing school closures, especially in Indonesia, forcing digital learning interactions to provide material and assignments that students must do at home. Teachers are required to be able to present learning using technology, or it can be called e-learning where the teaching and learning process is transferred to distance learning using Information and Communication Technology (ICT).

E-learning can be interpreted as learning and knowledge tools that are carried out by using computers or electronic devices. Hartley explained that e-learning is a type of learning that enables the delivery of learning materials to students using the internet or using other computer network media [13]. Rosenberg said that e-learning refers to the use of internet technology that functions to send a series of solutions or solutions so that it can improve skills and knowledge, as well as students' enthusiasm in learning [14]. Soekartawi defines E-learning as a general term for technology-supported learning using various teaching or

learning tools or bridges such as telephone, audio and video recording, teleconferencing, satellite transmission, and web-based training [15].

In general, e-learning is a form of learning that allows the delivery of material to students by using electronic circuits to convey the material and content of learning, guidance, or interaction as well as e-learning can be used as a medium of distance learning. Cisco explains the philosophy of e-learning that is, e-learning can answer the challenges of the development of globalization which provides a set of tools that can enrich the value of conventional learning; e-learning is the delivery of information, communication, education, training online; e-learning has a form of content that is in harmony between content and student learning styles which will ultimately provide better results in learning; e-learning does not mean replacing conventional learning models in the classroom, but reinforcing the learning model through enriching content and developing educational technology

While the characteristics of e-learning are, utilizing the advantages of computers (digital media and computer networks); utilizing electronic technology services; where educators and students can communicate with relative ease; utilizing the learning schedule, curriculum, results of learning progress and matters relating to the administration of education can be seen at any time on the computer; is an independent teaching material, can be stored on a computer so that students and teachers can access anywhere and anytime if they need it [14].

3.3 Previous research regarding E-Learning.

In previous research has been conducted by researchers, namely developing interactive learning media in the form of E-Module using the application of Adobe Flash CS6. Used Adobe Flash is because the application is an application that can be used to create light and reliable 2-dimensional animation so that it is widely used to build and provide videos, music, and animation on interactive multimedia that will be made. After the product goes through the validation stage by experts and is feasible for use, then the product is tested on students in three madrasah tsanawiyah schools or the equivalent of a junior high school in Bandar Lampung, with trials consisting of 30 students in each school. With data analysis techniques in research using qualitative descriptive analysis techniques.

The instrument used has 4 answers, that's Very Good (SB) given a score of 4, Good (B) score 3, Enough (C) score 2, and Less (K) score 1. The results of the assessment score of each of these students then the average is sought and converted to questions to see the module attractiveness criteria. The conversion of the score into an assessment question by looking for the average value ($\bar{x}$), namely by the formula for the number of student scores divided by the maximum number of scores then multiplied by 4. A score with very attractive criteria is obtained if $3.26 < \bar{x} \leq 4.00$, interesting if $2.51 < \bar{x} \leq 3.26$, less attractive if $1.76 < \bar{x} \leq 2.51$, and very less attractive if $1.00 < \bar{x} \leq 1.76$.

Based on the data analysis of the test results in the 1st school, an average of 3.29 was obtained, the results of the trial in the 2nd school have obtained an average of 3.30, then the results of the trial in the 3rd school obtained an average of 3.32, all of which reached the interpretation criteria which is very attractive. So from these data, it can be concluded that interactive learning media in the form of e-modules developed by researchers have attractive criteria to be used as student learning media so that by using them students become more enthusiastic in learning mathematics [16].

3.4 Relevant research on the use of E-learning media

Research and development of computer-based learning media or e-learning is the focus of researchers and mathematicians in improving the quality of the learning process. There are many studies on the application of technology in learning activities that emphasize the use of technology [17], where previously the use of technology in the mathematics learning process has also been recommended by the national mathematics teacher council and UNESCO has also recommended the use of technology in teaching and learning activities. The reason behind it is because mathematics is an abstract subject and will not be easily observed or felt by the senses. Therefore, it can be found that most students have difficulty understanding mathematics so that a learning medium is needed [18].

Based on several studies that have been conducted related to the use of interactive e-learning media. Research by Uba Umbara et al, namely the development of interactive learning media using the hippo animator application. Research shows that the interactive media that have been developed are suitable for use in mathematics learning. So from the results of the study it is concluded that interactive learning media interventions with Computer Assisted Instruction have a fairly good impact on learning mathematics, so that the use of Computer Assisted Instruction as a learning medium plays a very significant role in supporting students' mathematics learning, especially in increasing mathematical representation skills. students, thus multimedia can be used as the main learning media in student learning activities [19], this is also supported by the results of other studies where the use of electronic-based learning media can increase students' enthusiasm in learning mathematics [20]. CAI learning media is proven to be able to encourage student interest in learning, this is because multimedia is developed in an interactive way where the media is supported by motion animation, video, sound, and images. The explanation of the mathematics material is conveyed with a simple narrative which is integrated with the display of graphics, images, and audio can improve the concentration of students in learning the concepts presented. This result is relevant to other research conducted by Yogi Udjaja et al., In his research on e-learning learning media in the form of interactive games, it was found that learning media helps students to learn mathematics interactively and attractively and is assessed to be able to convey mathematical material easily so that it supports students understanding Mathematical material [21], it shows that learning with interactive media has a very effective impact in increasing self-confidence so that it is appropriate to be applied, this is because interactive media is able to support students when learning either directly or indirectly [22].

Based on the perspective of learning information and communication technology, other research has produced results that the content of learning multimedia plays a role in focusing attention and increasing student interest in learning, this happens because the concept of subject matter in learning multimedia is supported by being interactive in facilitating student learning activities, so it is effective in optimize the achievement of the objectives of learning activities[19]. Hendikawati, Zahid, and Arifudin in their research on Android-based Computer Assisted Instruction media, which based on the results of the study concluded that the Android-based CAI is valid for use as a learning resource, is flexible, and supports student self-learning. According to various sources also CAI in various variants can have a positive impact on learning, especially regarding learning outcomes achieved by students [23]. Erdogan & Dede compared the effects of computer-aided project-based instruction on student achievement in science and technology as well as in portfolio development. At the end of the study, the findings revealed that science and technology, as well as portfolio assessment scores from the experimental group, were significantly higher than the control group. These results

indicate that the benefits of learning are higher when instruction is provided by computer-aided project-based instruction than by traditional methods [24].

Other similar research conducted by Anton, Marlina, and Dwiyanti in the development of Student Worksheet Based E-Learning supported using Edmodo has great advantages as a medium to support mathematics learning activities, namely as a tool that makes it easier for students to learn and share knowledge so as to increase motivation to be positive towards learning [25]. The results of the research conducted revealed that students' learning attitudes using e-learning oriented worksheets were supported by Edmodo in the positive aspects of mathematics learning. This is because the first practice, which is simple and effective is used when in class, lacks time in working on questions so that it is easy to discuss, both applications can be used using a smartphone or computer and can be done online, the third can increase effectiveness in learning which saves learning time. In terms of learning students can share learning summary material, send assignments, and receive feedback from the teacher. So it was concluded learning using E-learning media based on student worksheets with edmodo can motivate students to be more active in learning so that the teaching and learning process becomes more effective.

3.5 Why the quality of mathematics learning can be improved through the use of E learning media

From the various research results described previously, the efforts that can be made in improving the quality of mathematics learning are by implementing e-learning media in an interactive form because remembering that multimedia e-learning is interactive can stimulate students' mathematical thinking, technology has an important role in the teaching and learning process whereby using interactive learning media, teachers can explain material with more proportional thinking, starting with connections to understanding [26]. Technology-based learning is widely used because it can help the teaching and learning process following what was said by Zhang which states that students who join interactive multimedia-based learning will produce higher learning outcomes compared to learning that is less interactive or traditional so it confirms that the use of technology is one way to improve learning [27].

E-learning has several advantages, namely; colorful and entertaining, flexible in terms of time and place, results can be evaluated, support class activities, content can be accessed again repeatedly, people in different geographical parts and can benefit at the same time or at different times. Pura & Aslan mentioned e-learning plays an important role in equalizing the level of communication between students and teachers, giving equal rights to all people, and increasing motivation for people who use it [28]. According to Sun, the rapid development of computer and internet technology has made e-learning an important learning media [29]. There is a significant increase in the need for multimedia teaching materials in e-learning because the content has proven to attract the attention and interest of students as well as by the use of multimedia e-learning based can improve students' learning outcomes by up to 85% in understanding the material being taught [30]. This improvement in learning completeness can occur because in the e-learning based media the presentation of the material description is equipped with relevant images as well as audio [31]. Besides teaching using e-learning will have a significantly higher level of mastery of the material compared to material that only uses the material in the form of written texts [32].

In the process of e-learning media is an innovation that has contributed greatly to changes in the learning process, where the learning process is not only listening to the teacher in describing material that seems boring but learning material can be visualized into various

forms and formats that are more interactive and dynamic so that students or students will be more motivated so that it causes the interest of students to be involved in the learning process. It is undeniable that student interest in learning is one aspect that affects the quality of student learning outcomes. Umbara stated that computer-oriented learning media was proven to be able to encourage student interest in learning, this was because the media that was designed was interactive. This is also in line with the perspective of learning with information and communication technology, where the content on technology-oriented e-learning media has an influence on student enthusiasm in learning and also focuses students' attention in learning because the content of the material on the media being studied is supported interactively where supported by motion animation, video, sound, and images [19].

4 Conclusion

Based on the discussion in this article, it can be concluded that interactive e-learning media is one of the learning media that students can use in learning in class. The use of interactive e-learning media has a good impact on student learning. The benefits obtained from using e-learning media as a teaching and learning tool are that learning will become more interesting so that it can lead to motivation to learn from students, the teacher's method of teaching students will become more varied, which is not merely verbal communication by the teacher so students do not Being bored, students become more involved in learning activities so that the use of multimedia based on e-learning can help students absorb subject matter more deeply and increase the completeness of student learning outcomes in understanding the material being taught. Thus the quality of mathematics learning can be improved by using e-learning media.

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The Learning Strategy of The Flipped Classroom With Gamification As An Alternative Learning Solution During The Covid-19 Pandemic

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Abstract. The purpose of this research is to analyze the Flipped classroom learning strategy when combined with gamification as a learning solution during the COVID-19 pandemic and to provide recommendations for teachers, learning designers, and practitioners regarding the implementation of the two learning strategies. This study uses a qualitative content analysis method. Based on the results of the analysis, giving gamification elements into learning has the potential to increase the quality of mathematics learning. Several research results state that the use of the Flipped classroom strategy and the use of gamification have a positive impact on learning so that it can be a suggestion for learning during the COVID 19 pandemic, especially in mathematics learning.

Keywords: Flipped Classroom, Gamification, Mathematics Learning

1 Introduction

Distance learning is an alternative learning option during the Covid-19 Pandemic, physical contact or face-to-face contact between humans must be minimized from daily life and transformed into a new tradition called "New Normal" [1]–[4]. Technology is needed to support the distance learning process [5]–[7]. The rapid development of information technology can't be avoided its effect on education [8], [9]. With rapid technological advances, the use of technology in learning mathematics is very well used because it produces positive results in learning and understanding concepts [10], [11]. A teacher must improve the learning strategy and strive for innovation in the process of learning mathematics [12]–[14]. At present, many innovations in mathematics learning can be used to maximize the learning process.

Researchers and practitioners have investigated effective methodologies and instructing techniques to include and spur understudies in the learning process, some of them are Flipped classroom [11], [15], [16] and gamification [17] The *Flipped classroom* is an innovation that helped to learn a system that states critical thinking and learning with partners in the classroom [18], [19]. In a Flipped classroom, learning activities that are usually carried out in class are carried out outside the classroom. Thus, activities in the classroom can be focused on exercises that can animate understudies to think at a more significant level [11], [18], [20]–[24]. Flipped classrooms need to be designed so that they have more value in terms of learning design. Giving design elements of gamification into learning will potentially increase the quality of mathematics learning.

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Gamification is the concept of applying the principles and mechanisms of play in non-game activities, especially in education. This learning utilizes components in games or computer games that plan to persuade understudies, as ideas that utilization game-based mechanics, style, and thinking games to connect with understudies, rouse activities, advance learning and solve problems. Based on previous research, the use of learning Flipped classroom and gamification has been widely used in various studies [17], [18], [21], [25]–[33]. However, there have been no previous studies that analyzed the Flipped classroom learning strategy combined with gamification as a learning solution during the COVID-19 pandemic. Therefore, this article will discuss how the Flipped classroom learning strategy combined with gamification as a learning solution in the COVID-19 pandemic and as input for future education. Therefore, the novelty in this article is to discuss the Flipped Classroom learning strategy when combined with gamification and the implementation of these two strategies in learning during the COVID-19 pandemic.

2 Method

2.1 Research Design

The qualitative analysis method is the research design used in this study. A topical investigation that focusing on the connection between substance and setting which comprises of ordering, putting together, contrasting, and separating hypothetical ends from different articles or exploration [1].

2.2 Participant

Participants in this study consisted of 20 literature that discusses Flipped classroom learning strategies and gamification, the literature used is an article sourced from various databases such as Scopus, Springer, IEEE explore, and ScienceDirect. The author analyzes abstracts and related contexts to generate some ideas or find relationships in finding learning strategies for Flipped classroom and gamification. This study uses several criteria, the sample criteria include inclusion criteria that determine whether or not the sample can be used. The inclusion criteria in this study were a literature that was selected to be a participant published between 2014-2020, related to flipped classrooms and gamification aimed at describing flipped classrooms and gamification.

3 Result and Discussion

3.1 The Flipped Classroom

In the 21st century, one of the learning strategies is a flipped classroom. In learning with the flipped classroom, to maximize time in the classroom, students are given a video, which is an instructional video created by the teacher. The video is given to students before learning begins. [18], [34]. When in class, the teacher helps students who have difficulties and provides

problems or activities that are more challenging for students who have understood the concept of the lesson [24]. There are four pedagogical dimensions to explain why the flipped classroom supports student-centered learning theory, namely personalization, higher-order thinking, self-direction, and collaboration [20]. In Bloom's Taxonomy, cognitive levels such as remembering and understanding can be done with the help of instructional video instructional in Flipped classroom learning, meanwhile, learning in the classroom is focused on the cognitive level of application, analysis, evaluation and creating [21], [31]. The basic principle of this flipped learning is that time outside the classroom is very structured, preparation for assessment can be done before learning in class by the teacher, time in class must involve the process of problem-solving and cooperative discussion, and teacher feedback is done in the classroom. Some things that must be considered in this learning are the importance for teachers to compile instructional videos, students know the material through videos that are done before learning in the classroom, students are given a stimulus to make preparations, students' knowledge is assessed before class starts and classroom learning involves higher-order thinking processes [21]. Examples of instructional videos made by teachers in Flipped classroom learning can be seen in Figure 1

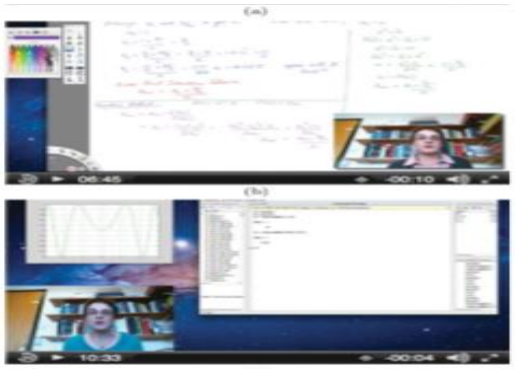

Fig 1. Examples of instructional videos used in learning Flipped classroom

3.2 Gamification

Gamification is the concept of applying the principles and mechanisms of the game in non-game activities into learning [32], [33]. Nick Pelling was the first person to use the term gamification in 2002. Gamification is a learning approach using elements in games or video games to motivate students in the learning process, gamification can maximize the enjoyment and engagement of the learning process, besides this media can be used to capture things that interest students and inspire them to continue to learn. [35] Gamification building engagement with certain groups. The steps of applying gamification in learning recognize the learning objectives, determine the big idea, create a game scenario, create a design of learning activities, build groups, and apply game dynamics. Many gamification services can be used in learning,

Juan José Bullón et all uses two well-known gamification services namely Socrative and Kahoot. [29]. Socrative is a student response system that allows teachers to create quizzes or interactive games that involve students directly or in real-time, while Kahoot is a multiple choice quiz game or discussion and survey that can be used by anyone and is not limited to the level of age and subject matter. In Barbara's research, examples of Kahoot and Socrative application forms can be seen in Figure 2 [21]

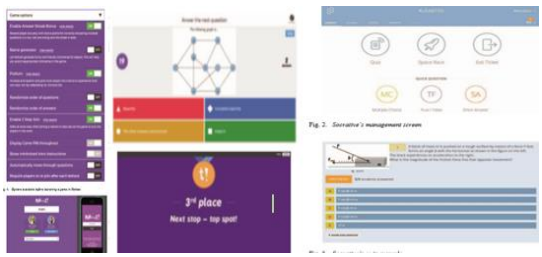

Fig 2. Kahoot and Socrative application

3.3 Relevant research on using flipped classroom and gamification

Based on some previous research that has been done, research related to the application of Flipped classroom learning has been carried out, research by Chung Kwan Lo & Khe Foon Hew states that students in Flipped classroom classes significantly outperform students in traditional classes and independent studies online. Also, Flipped classroom learning encourages students' cognitive involvement for the better. The students 'interview findings show that peer interaction in learning Flipped classroom is very important to encourage students' mathematical achievement and cognitive involvement [18]. Kaushal et al Chang state that there are significant differences between the implementation of the flipped classroom and conventional learning, a significant difference is seen in student achievement and motivation, ie students with flipped classroom learning are better than students in conventional classes. In the flipped classroom, students with low achievement get more attention from the teachers and discuss problems to understand the concept. Therefore, learning like this can help those who have low achievement to improve their performance in learning [11]. Betty Love, Angie Hodge, Neal Grandgenett & Andrew W. Swift in their research they found that students in flipped classrooms continued to perform better than students in traditional classes on the final exam, which represented conceptual understanding. This result is important because students in flipped classrooms not only learn the mathematical skills required in linear algebra but also students are more interested in enjoying the class because it triggers and maintains students' interest in mathematics is very important[36]. Barbara M. Johnston explained that most students liked the learning videos made by the teacher. The flipped classroom is still recommended to be applied in learning because it suits different student learning styles, and time in class can be used more productive [21]. Caleb Adams & Anthony Dovein their study stated that participation in Flipped classroom learning substantially increased achievement. However, there was no difference between students'

beliefs about learning mathematics between the two groups. To understand the success of Flipped classroom learning students must focus on instructional videos and a consistent presence is needed in practicing the techniques shown in lecture videos and class learning. [24]

Research on gamification has also been widely applied in several previous studies, Yogi Udjaja, Vincent Sadino Guizot dan Natalia Chandra in their research developing gamification-based interactive learning games to support students understanding mathematical material, the purpose of this application is to help students to learn mathematics interactively and attractively and be used to convey mathematical material easily[28]. Andrey V. Kirillova in his research mentioned that gamification can help create a beneficial learning environment, ensure high involvement of all participants in the education process, significantly reduce the impact of adverse factors in learning. Gamification can increase student motivation for a long time, turning student training into educational and interesting games. Games can generate interest in students, create a pleasant learning environment, and continue to motivate to move to the next level, get awards, and complete assignments. Gamification, changing student behavior to contribute to the formation of new habits. This can be in the form of modernization of educational space aimed at improving students' attitudes towards learning, planting healthy lifestyles, skill-building, and others. New habits students have the desired effect of creating a more effective education system. Juan José Bullón revealed that, Subsequent to dissecting the criticism given by understudies through polls, it appears to be that the utilization of gamification devices, for example, Socrative and Kahoot is invited. The best approach to improve understudies' discernments in this field is to give more opportunity to address questions or make tests, every understudy can follow their means. In any case, it very well may be said that utilizing this plan in all tests will decrease parts of amusement and appeal. The advantage for the instructor is that they can actuate understudy support. By utilizing Socrative or Kahoot, understudies are compelled to react, which causes them to build up their aptitudes and abilities. Additionally, utilizing this gamification can permit space for understudies to think. However, not exclusively in the discussion advanced along these lines, yet cooperation is additionally encouraged[29]

3.4 Strategy Flipped Classroom is combined with gamification in mathematics learning

Learning strategies make the learning process more active, learning strategies depend on the teaching methods used by the teacher. [37]. During the COVID-19 pandemic, face-to-face learning must be reduced to minimize the spread of the coronavirus, especially in the learning process at school. One learning method that can be applied is the flipped classroom, which provides student-centered learning facilitation through online learning. In this Flipped classroom, students are required to be responsible for their learning outside the classroom. This is realized by learning through learning videos provided by the teacher. In this way, students will be ready to do learning in class, time in class can be optimized by active and innovative learning, such as discussion, problem-solving, presentations, or project-based learning. The concept of student-centered learning offered by flipped classroom must indeed

be supported by students' willingness to learn. In other words, students must have high motivation to follow the entire stages of the flipped classroom, starting from watching video learning outside the classroom, discussing solving problems in the classroom, and working on assignments or projects given by the teacher. Therefore, teachers and learning designers need to provide mechanisms that can ensure the high motivation of student learning to remain. To do this, gamification can be applied in learning Flipped classroom. The use of game design elements in gamification will help meet students' needs for competence, autonomy, and relationships.

To see an illustration of the use of gamification in the flipped classroom, the next will be discussed mathematical learning design that has been implemented by Lo & Hew, which has combined Flipped classroom and gamification into mathematics enrichment classes. When outside the classroom, students are asked to watch learning videos to recall the material they have previously learned and study the basic material. After that, students work on online follow-up exercises. The execution of this exercise is aimed at making students able to apply their knowledge and understanding after they watch the video. Class activities begin with quizzes and review pre-learning materials. After that, students listened to the teacher's brief presentation and continued with individual exercises and problem-solving in groups. In this learning system, game design elements are used in the learning management system. These elements are points, badges, progress charts, and leaderboards. Points are awarded to students if they watch videos, complete online follow-up exercises, and additional assignments. Badges are given when students have completed all pre-learning activities before class. A different badge is also given if students complete all pre-learning activities each week. The progress graph is used to show the progress of the student learning process every time. Finally, leaderboards are used to show student rankings based on points that have been obtained.[18] Hung et al in his research applying Flipped classroom to game-based learning. Students are given directions to watch learning videos and do practice questions before entering class. When watching a video, students can see their level of participation and ability through the points shown. The execution of the exercises is aimed at making students aware of their ability to develop the material they are learning. When in class, students are conditioned to do game-based learning. In this study, all students are divided into heterogeneous groups consisting of 3 to 4 students. Each student in the group is given the role of general, tactician, and soldier. The assignment of this role is based on students' mathematical abilities, generals for high-ability students, tacticians for medium-ability students, and soldiers for low-ability students. The task of each group is to discuss and solve mathematical problems obtained from textbooks or learning videos that they have watched. The solution to this problem is used to conquer the area of the map provided by the teacher (this is an element of the story in the game). After the group finished solving the problem, they were asked to appoint one of the group members to present their results. If a general presents it, then the group's value is 1 point, if a tactician scores 2 points, and if a soldier scores 3 points. [30] Two previous studies in mathematics learning have illustrated how a flipped classroom is combined with gamification. Both of these can be used to seek active and enjoyable mathematics learning so that it has a positive

impact on student learning outcomes and motivation. Using the game method effectively expected against student motivation.[38]

3.5 How to apply a flipped classroom and gamification in online learning?

Social change that suddenly occurs due to the spread of Covid-19 had caused stutter in a teaching-learning activity. The entire stage of education should be able to take transformation to drastically adapt to learning from home through online activity, the solution is educators are required to design learning by utilizing online media. The learning system is implemented through computer equipment that connects to internet network connection or in other words online learning. In various countries, several cities fall into the red zone category. In the red zone lockdown policy begins prevailing to avoid increasing cases and the victims due to infectious disease, therefore online learning be an alternative that can be used.

The syntax of the flipped classroom model combined with gamification in online learning consist of (1) students learning to make questions by themselves. Students watch the learning video by themselves at home and take notes or questions that they are not yet understood. Learning that is usually done in the classroom is transferred to the virtual classroom such as the use of "Google classroom" while the coordination through WhatsApp application. Google Classroom is a free online platform, while the teacher can create virtual classes and invite or add the students into the group. This can help the teacher to arrange the lesson material. In google classroom, the teacher has coordinated the learning material, namely the learning videos made by the teacher as well as the learning videos from Youtube various other sources of teaching materials. (2) The students enter the class via the web and discuss it. Learning via web begins with students filling out the attendance list first trough "google classroom" then the students with the help of the teacher discussing on the web. The use of zoom applications and other similar applications can help the students in discussing with the teacher without doing process directly learning. (3) Apply students' abilities in video projects. Students are asked to make a learning video by their version, videos are made with the aim so that students are more creative in the use of technology and help them to remember the material. (4) Measuring the ability of students with design gamification, measuring students understanding done online can be done by utilizing a gamification based application Including being able to use the Quizz application, Kahoot, and other applications. The use of gamification keeps students motivated to follow the learning consistently.

Learning using flipped classroom strategy combined by gamification can give many advantages in the process learning at during COVID 19 pandemic, however behind there are many advantages of implementing this strategy, there may be a challenge in it is implementation, the challenge that may be faced is students are not ready or not familiar with the flipped classroom learning process so that the students not interested in learning like this. Unprepared pre-learning assignment, inability to ask in learning activities outside the classroom Inability to understand video content, increasing learning load, inability to access prepared learning material may be very challenging. Therefore in implementing this strategy, every component of resulting learning must be considered. Firstly, learning video needs to be

well designed so that it optimal in facilitating students learning. The teacher needs to observe student's characteristics in their class to make a video that is aimed for students itself and sure it can be combined with element gamification. Secondly, it is necessary to practice exercise that aims to provide opportunities for students to apply their knowledge, with the exercise also can be known which students have conducted pre leaning activities. Third, the use of social media such as WhatsApp and others needs to be utilized to minimize meetings between students and teachers. Fourth, the activity of reviewing material that has been learned by students during independent learning outside the classroom needs to be done at the beginning of learning activities in the classroom. This is intended so that teachers can provide feedback to students regarding learning. Also, by doing this activity the teacher can see the misconceptions experienced by students and immediately correct them. Fifth, the problem-solving process is more emphasized during the learning process. Sixth, the teacher needs to provide continuous, timely feedback to students about developing their learning. This will provide insight to students about the distance between the reality of their learning abilities and the objectives to achieve.

4 Conclusion

The conclusions that can be obtained based on the discussion in this article are the elements of game design in gamification can be used in learning to complement the flipped classroom approach so that students have the motivation to learn to participate fully in learning and can be used as learning strategies during the COVID-19 pandemic. Thus, students will get optimal results from what is student-centered learning can offer, namely personalization, high-level thinking, self-direction, and collaboration. With designs being considered from a variety of theoretical perspectives, the combination of flipped classroom and gamification has the potential to develop students' abilities and skills. Furthermore, the combination can increase the intensity of students to interact with technology. Thus, this kind of learning strategy will provide space for students to improve their technological literacy.

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Effectiveness of Online Learning during the Covid-19 Pandemic on Economic Subjects in High Schools

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Abstract. The Covid-19 pandemic has an impact on changing learning methods from face-to-face learning to online learning, learning activities that were originally carried out in schools because of the pandemic must be carried out at home. This learning method then made many teachers use various online learning media as an alternative learning which turned out to cause many complaints from students. The application of online learning due to changes in learning methods is a phenomenon that is studied more deeply by researchers using a descriptive qualitative approach. There are three kinds of data collection techniques used in this research, namely the observation method, the documentation method, and the interview method. All data obtained by the researcher were analyzed in detail, then the validity of the data was carried out using triangulation of techniques and techniques. The findings of this study indicate that the google classroom learning platform is preferred by teachers over other learning platforms such as Edmodo, WhatsApp Group, Zoom.us, and Google Meet. The Google Classroom learning platform is considered effective by teachers and easily accessible by students so that students can learn independently. Many learning features make it easier for teachers to create, modify, and monitor learning so that learning is more interesting, flexible, and a collection of student assignments can be known in more detail.

Keywords: Effectiveness, Alternative Learning, Online Learning.

1 Introduction

2020 will be a historic year for the development of human life. Since the outbreak of cases related to the corona virus that occurred in Wuhan, China at the end of 2019, this virus has become a trending topic around the world. Indonesia is one of the countries in the world that cannot be separated from the Covid-19 outbreak. The origin of the Covid-19 pandemic in Indonesia began with the discovery of a Corona Virus sufferer on March 2, 2020, then this virus was rampant throughout Indonesia. Various anticipations were made to break the chain of the spread of Covid-19, such as calls to the public to carry out social distancing (stay at home), lockdown efforts, government policies to carry out rapid tests and in several areas it has been enacted on a large scale. scale of social boundaries.

Efforts to prevent the Covid-19 pandemic continue to be carried out by all levels of society. The appeal to stay at home, make all community activities carried out at home such as working at home, studying at home, even praying at home. The spread of Covid-19 initially had a major impact on health and the economy, but the increasing spread of Covid-19 also has an impact on the education sector. The decision to carry out learning activities at home is a challenge in the world of education [1]. The existence of this decision caused a change in the way of learning which was initially face-to-face where students and teachers carried

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out the learning process at school, but due to the Covid-19 pandemic, the learning process had to be done at home online or online [2],[3]. Behaviorists believe that humans are greatly influenced by environmental conditions, so that they can provide certain experiences to themselves [4]. Such conditions require teachers to find ways that can be used to support the learning process so that students get the right to learn. Finally, as an alternative to learning to solve this problem, teachers use technology to support online learning.

The application of online learning is an alternative for implementing technology-assisted learning as a medium that can be used by teachers in providing learning to students effectively [4]. Teachers are expected to be able to become facilitators for students during the learning process, and to support them, teachers can use learning media that students can use to support the learning process in all conditions [5]. Basically online learning is a term of learning through media by utilizing electronic or digital [6]. The use of online learning media is a learning innovation that makes it easy for students, because online learning can help students transfer information to develop knowledge, skills and learning flexibility more efficiently [7].

Technology has an important role in the learning process, when applied inside and outside the classroom [8]. The application of online learning media aims to support the learning process, so that the information conveyed by the teacher during learning becomes better and easier for students to understand [9]. Students can freely use smartphones to access learning materials, so learning becomes more flexible. Online learning is an effective alternative to learning by combining the delivery of digital learning materials as support and services in the learning process using various existing learning platforms [10]. Teachers can use a learning platform that can make learning easier for students. Online learning platforms that are often used during the learning process include Google Classroom, Edmodo, zoom.in, webex and even google meet [11]. To be more optimal, using this learning platform can also be used by using communication media such as WhatsApp, telegram, messenger, and so on [9].

Based on the focus points studied by the researcher, this study examines alternative learning carried out by the Economic Subject Teacher Deliberation group, as many as 52 teachers who are members of the Economic MGMP group, there are 37 teachers who are over 40 years old, the rest are under 40 years. 80% of the total MGMP teachers explained that they prefer to use the google classroom learning platform, 50% use video conferencing platforms such as zoom.us and google meet, and 4% use the edmoodo platform. As well as the majority of teachers who facilitate communication, prefer short message applications such as WhatsApp Group and Telegram.

This study examines more deeply the effectiveness of implementing learning during the Covid-19 pandemic in economic subjects including the challenges faced by teachers in choosing learning media as an alternative to learning in the face of the Covid-19 pandemic in economic subjects, alternative learning solutions in the face of the Covid pandemic. -19 on economic subjects and the effectiveness of the application of online learning as an alternative to learning during the Covid-19 pandemic in economic subjects. Changes in the learning process certainly have an effect on teacher performance [12], for young teachers there may be no problem if learning is done online using an online platform, but for teachers who lack technological skills because of Kudet (not updated) and age collide with difficulties in doing online learning.

Online learning is one solution that can be done during the Covid-19 pandemic, learning is much more flexible because it can be done at home [12]. However, this kind of learning creates new problems for students regarding their readiness to do online learning. Learning systems like this require high costs such as providing internet quota, procuring

standard smartphones for online use, strong internet signal networks, and not to mention if there are questions that make it difficult for students.

Education observer Drs. Sulthon, M.Si, quoted from Gema Surya Fm, explained that online learning is actually a one-sided policy, without paying attention to student conditions related to facilities and financial conditions. The unavailability of quotas due to the small amount of money resulted in many students being in arrears for teacher assignments which over time became a lot and ultimately affected the learning process. Many students also cannot take part in learning because the internet signal network is experiencing interference. In addition, based on the explanation from the teacher, it is stated that online learning is an opportunity for stubborn students not to take part in learning for various supporting reasons. Of course, the problems that teachers and students complain about have a big impact on the effectiveness of the application of online learning.

The application of learning that is carried out online does not necessarily run smoothly, but creates new problems, namely related to the readiness of teachers and students to carry out the learning process using online learning platforms. For teachers who are young, maybe there will be no problems if the learning is done online, but for teachers whose technological skills are lacking due to inadequate updates and age clashes, they will definitely find it difficult to do online learning. Meanwhile, another complaint is that a learning system like this requires a fairly high cost for internet quota provision, standard smartphone procurement for online use, and not to mention if there are questions that make it difficult for students. Many students cannot participate in learning because the internet signal network is experiencing interference. In addition, based on the teacher's explanation, online learning is an opportunity for stubborn students not to take part in learning for various reasons. Therefore, researchers further analyzed the effectiveness of the application of online learning as an alternative to learning during the Covid-19 economic pandemic in high school.

2 Research Methods

Sugiyono explains that the research method is a scientific way to obtain data with specific purposes and uses [13]. This study uses a descriptive qualitative research approach. Descriptive qualitative research is a research based on the philosophy of postpositivism, to study natural objects the researcher is a key instrument, data collection techniques are carried out by means of triangulation (combined) [13]. Data grouping in this study is divided into two data, namely primary data and secondary data. Primary data sources in this study were obtained through interviews and observations. The primary data sources in this study were obtained from the teacher as the most important informant in the study. While secondary data is used by researchers as supporting information obtained from primary data sources, namely from literature studies, literature studies, previous research, books, or activity reports held by teachers on subjects. the economy.

There are three kinds of data collection techniques used in this research, namely the observation method, the documentation method, and the interview method. This study uses non-participatory observational research techniques, where the researcher is not directly involved in the activities of the observed informant, and only acts as an independent observer. Descriptive qualitative research requires researchers to be able to reveal objective truths related to the focus of the research they want to know, therefore the validity or validity of data in qualitative research is very important. The validity of this study used triangulation techniques. Triangulation can mean that there are different informants or different sources of

data about something. Triangulation is done to strengthen the data, so that researchers believe in the truth and completeness of the data obtained.

Data analysis is inductive or qualitative and the results of the study emphasize meaning rather than generalization. This qualitative data analysis method uses data analysis techniques Miles and Huberman, where data analysis techniques are divided into data collection, data reduction, data presentation, and drawing conclusions / verification.

3 Research Results and Discussion

The following are the results of research on the Effectiveness of the Application of Online Learning as an Alternative to Learning in the Covid-19 Pandemic Period in Economics in High Schools.

3.1 Implementation of learning during the Covid-19 pandemic in economic subjects in high schools

The application of technology-based online learning is one form of implementing learning by utilizing technology as a medium for transferring knowledge from teachers to students. Indrajit explains that in the term e-learning, there is the word e- which basically represents an electronic word which means the occurrence of learning events using electronic-based devices [6]. Littlejhon and Pegler argue that e-learning is a teaching and learning process using computers and technology, especially learning using the internet [14]. The application of online learning media provides various benefits in the field of education, as explained by Lage-Cal & Folgueras-Diaz [15]; Simuth & Schuller which states that the advantages of e-learning emphasize flexibility during the learning process [16]. Students can learn more independently and more freely, students can be more responsible in learning so that the Student Center Learning (SCL) learning method can be achieved.

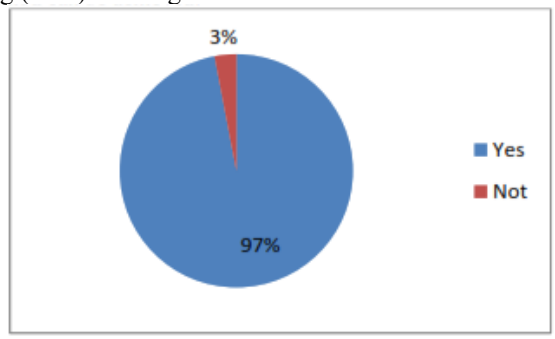

Fig 1. Application of online learning in economic subjects.

The decision regarding distance learning makes all subjects applied online, and economics is no exception. Based on the research data obtained by researchers, there were 97% of respondents who explained that learning was carried out online in all subjects including economics, and the remaining 3% of respondents did not apply online learning. The implementation of this online learning is in accordance with the decision of the Minister of Education and Culture (Mendikbud) Nadiem Anwar Makarim with the approval of President Joko Widodo by issuing Circular Number 4 of 2020 concerning the Implementation of Education during the Covid-19 pandemic.

Tigowati *et al.* explain that the purpose of online learning is to help conventional learning so that students can easily receive subject matter [17]. Therefore, a learning platform that is easily accessible by teachers and students is needed so that learning can run according to planning [18]. In accordance with research conducted by researchers, there are 75.9% of respondents using various online learning applications / facilities that can facilitate access in delivering learning to students, while 24.1% of respondents use online learning facilities that have been provided by schools, such as learning systems. e-learning that has been implemented in several schools. In fact, schools have provided flexibility to teachers in delivering material using a learning platform that is tailored to the needs of teachers and students in learning. One of the success factors in using online learning is the ease of access for students and teachers in using appropriate online tools.

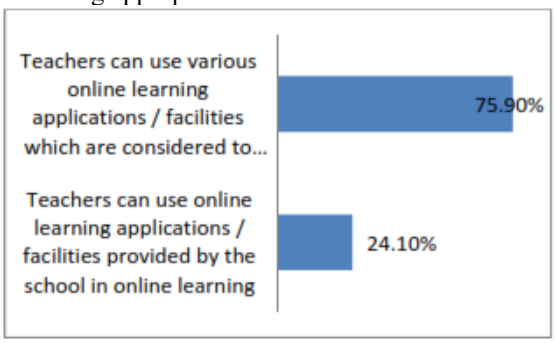

Fig. 2. Policy delivered by the school regarding the use of online learning applications / facilities

Online learning is carried out by all teachers including economics teachers using various online learning platforms. describes the platform is a combination of software and hardware to run a program. Its function is to make it easier for computer users to run applications smoothly.

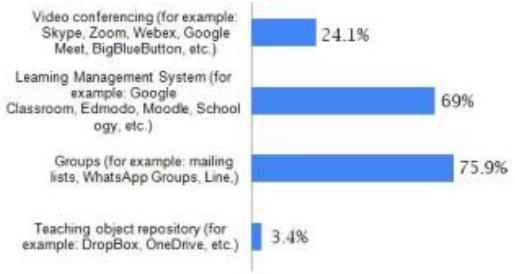

Fig. 3. Online learning media used in implementating economic learning

Based on data from the results of research conducted by researchers, there were 75.9% of responses that explained that teachers used mailing lists such as WhatsApp Group to communicate with students, and there were 69% of responses that explained that teachers prefer to carry out online learning based on google classroom. Furthermore, there were 24.1% of respondents who carried out online learning based on video conferencing in the form of zoom.us and google meet. Other supporting media so that learning can be maximized, namely teachers can easily communicate with students using Whatsapp.

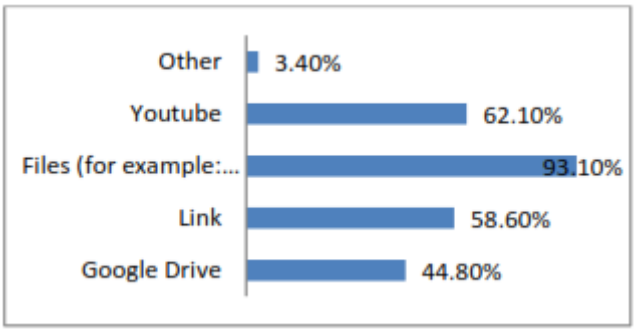

Fig. 4 Learning facilities use in delivering course material online learning

The application of online learning requires teachers to be more innovative in developing learning materials. 93.1% of respondents stated that teachers delivered subject matter in the form of files such as words, power points, even learning videos, 62.1% of teachers delivered learning materials using YouTube, 58.6% of respondents delivered subject matter using links or links that could be accessed by students . And there are 44.8% of respondents who use Google Drive, and there are 3.4% of respondents who choose Google Form to deliver learning materials.

The delivery of assignments during online learning is quite diverse, ranging from making multiple choice questions, essay questions, true and false questions, summarizing, looking for articles to making mind mapping. The purpose of delivering this assignment is as an evaluation material to determine the ability of students to carry out online learning independently [16]. The form of essay questions is preferred by the teacher because it is intended to measure higher order thinking processes. So that the teacher is able to know the ability of students to express their opinions openly in accordance with the material presented by the teacher. For multiple choice questions selected by the teacher to measure low to moderate thinking processes, the difficulty level of the questions can also be controlled by the teacher. Multiple choice questions can help the teacher to score students more quickly and accurately because the correct answer for each item is clear and certain. In the process of submitting assignment results, students usually send the results of their assignments to the facilities available on the google classroom, or via mailing lists such as WhatsApp, email, google drive, or e-learning media provided by the school. Furthermore, the teacher will provide feedback to students regarding the results of student work.

3.2 Constraints faced by the teacher when the learning pattern changes from face-to-face to online

The application of online learning does help teachers in implementing learning effectively, but that does not mean it cannot be separated from an obstacle [19],[20]. The research center for the DPR RI Expertise Agency explained that there are still obstacles in the application of online learning such as the lack of human resource capabilities in managing existing technology (both educators and students), lack of clarity in local government directives regarding the learning system being implemented, curriculum adjustments to learning needs, and limited facilities and infrastructure, especially technology support and internet networks. Many complaints were raised by the public regarding the implementation of online learning, such as limited technology facilities and limited internet networks in some areas [21]. Reporting from national.kompas.com, the Indonesian Child

Protection Commission (KPAI) received at least 246 student complaints complaining about online learning. KPAI commissioner RetnoListyarti said complaints related to internet quota were recorded at the highest, namely 43% of the number of complaints received.

The existence of online learning requires teachers to be open to technology [22]. Based on research data obtained by researchers, the application of learning carried out by teachers online as an alternative to learning in the face of the Covid-19 pandemic in economic subjects in high school has an effect on teacher performance, for young teachers. under 40 years of age there are no obstacles when learning is carried out online, but for teachers whose technological skills are lacking due to a lack of updates (not updating) and teachers over 40 years of age find it difficult to do online learning. Therefore, training is needed that can help teachers in online learning.

The implementation of online learning requires a fairly high cost for providing internet quota, procurement of standard smartphones for online use, a strong internet signal network, and not to mention if there are questions that make it difficult for students. Based on the explanation from the teacher, it is stated that online learning is an opportunity for stubborn students not to take part in learning and not to submit assignments for various supporting reasons [23]. Of course, the problems that teachers and students complain about have a big impact on the effectiveness of the application of online learning. Therefore, a solution is needed that must be applied by educators and students to anticipate various obstacles that can occur.

3.3 Alternative learning solutions in the face of the Covid-19 pandemic in economics in high school

The implementation of online learning does not necessarily run smoothly, based on research data that has been conducted by researchers, it is known that the application of online learning actually creates new problems for teachers and students. Therefore, there must be a solution that can be used by teachers in dealing with various kinds of problems that arise from ongoing online learning.

The rise of the Covid-19 pandemic case has made many schools still have to implement online-based learning. Many schools provide policies for teachers to use online learning platforms that are easily accessible to teachers and students, such as google classrooms, google meet, zoom.us, and short message applications such as whatsapp.

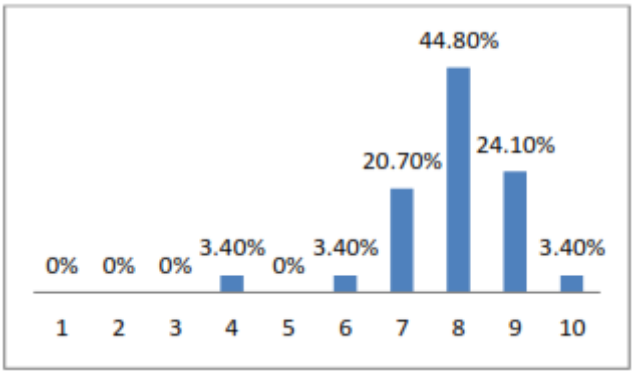

Fig. 5 The value given by teacher relates to the ease of access to use of learning facilities

Based on research data, it is known that an average of 44.8% of teachers gave a score of 8 for online learning platforms, 24.1% gave a value of 9, and 3.4% gave a value of 10 which

means online learning. using an online learning platform. actually easily accessible to students and teachers. Because online learning platforms help teachers and students to be able to carry out the learning process anywhere and anytime [24]. Teachers can be more innovative if they use an online learning platform because teachers can modify their learning to be more innovative by using the learning facilities available on the platform, so that students are more motivated and learning objectives can be achieved [25].

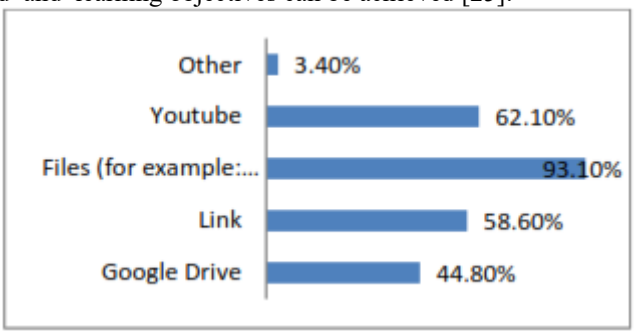

Fig. 6 Learning facilities use in delivering course material online learning

The development of e-learning is needed to improve the quality of learning [26]. The availability of learning facilities can improve the development of online learning [7]. The facilities provided by online learning platforms are quite diverse, for example the facilities for entering learning materials in the form of power) point, youtube link, google form, google doc, and many more. Regarding this, there were 93.1% responses which explained that generally teachers delivered subject matter in the form of files such as words, power points, and even learning videos. 62.1% of teachers delivered learning materials using YouTube, 58.6% of responses delivered subject matter using links for students to access. And there were 44.8% of responses using Google Drive, and there were 3.4% of responses that stated they preferred the Google form to deliver learning materials The application of these technologies helps teachers improve skills technology so that it becomes more updated and more aware of technological developments.

In the implementation process, the application of online learning cannot be separated from the obstacles that arise from students [12]. Based on the teacher's explanation, the tendency of students not to take part in learning for various reasons is very likely, such as no internet signal, damaged cellphones, illness, and so on. Therefore, teachers provide leeway for students in implementing online learning, teachers always remind students to take part in learning, schools provide quota packages to students through boss funds, and schools allow students to use ICT laboratories for students who need to carry out online learning. Actually, all kinds of solutions have been applied to overcome the various obstacles that exist, but if there are still stubborn students during the lesson, usually the homeroom teacher and counseling teacher will act decisively to remind them by notifying their parents or making home visits. to find out the student's condition.

3.4 The effectiveness of the application of online learning as an alternative to learning during the Covid-19 pandemic in economics in high school

The development of technology in the field of education has contributed significantly to improving students' learning abilities. The objectives of learning using technology can be achieved well by teachers by designing learning systematically so that learning is more

effective and directed [27]. Teachers can use online learning platforms that are in accordance with student conditions to improve learning effectiveness.

The application of online learning using an online learning platform is one of the learning alternatives applied to anticipate the spread of the Covid-19 pandemic as an implementation of learning and working at home policies [28]. Based on research data, the teacher explained that the application of online learning using an online learning platform was known to be quite effective in helping teachers in distance learning. Online learning is a challenge in itself for teachers, because teachers are required to be more creative and innovative in providing learning material so that students can learn independently and students do not get bored easily [29]. Even though in fact the application of online learning also makes it difficult for teachers because teachers get tired easily when making learning materials and when correcting student assignments.

When viewed from the perspective of its effectiveness, the application of online learning by utilizing online learning platforms such as google classroom, google meet, zoom.us, and so on is indeed effective because there are many learning features that teachers can use in providing learning to students. can actually help teachers to provide material in more innovative ways [12]. But in reality, based on the teacher's explanation, face-to-face learning is much more efficient when learning takes place because the teacher can directly overcome student learning difficulties and also the teacher can find out the student's ability to accept learning. . The teacher's figure as a role model who loves, hones, and fosters students more than the application of distance learning which makes the teacher biased and not maximal in providing learning to students.

4 Conclusion

The Covid-19 pandemic has an impact on changing learning methods from face-to-face learning to online learning, learning activities that were initially carried out in school due to the pandemic must be carried out at home. This method of learning then makes many teachers use a variety of online learning media as an alternative to learning which actually causes many complaints from students such as the availability of internet networks, availability of quotas, or even the availability of facilities and infrastructure needed by students such as cellphones or laptops. However, related to the complaints felt by students, the school has actually provided a lot of ease of learning to students, such as internet quota packages, learning flexibility, and schools allowing students to use ICT labs for students who need to carry out online learning.

The implementation of online learning provides an interesting experience for teachers and students. The existence of this kind of learning, requires teachers to be more open to technology. Teachers are required to be more innovative and creative so that all forms of information conveyed can be easily understood by students. The teacher strives to provide learning flexibility to students so that students do not feel pressured when learning takes place, such as providing material that is easily understood by students, giving uncomplicated evaluation questions, and the teacher trying to understand the student's learning load so as not to be burdensome.

Online learning is implemented by teachers using learning platforms that can be easily accessed by students, such as google classrooms, zoom.us, google meet, and even mailing list media such as WhatsApp and email. This learning platform is a learning platform that has been chosen by many teachers for online learning. Because this learning platform provides various kinds of learning facilities that can be easily used by teachers to deliver

learning materials more innovatively. Therefore, the application of online learning as an alternative to learning by utilizing online learning platforms has been proven to be effective during the Covid-19 pandemic in economic subjects in high school as a form of implementation of learning and working at home policies. Although basically the implementation of learning is more efficient during face-to-face learning, this is still difficult to implement due to the soaring cases of the Covid-19 pandemic.

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The Adaptation Strategy of *Semarangan* Dance Style's Learning Method in UNNES during Covid-19 Pandemic Era

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Abstract. This study aimed to analyze the adaptation strategy of *Semarangan* dance style's learning method in Universitas Negeri Semarang during the pandemic. This study uses qualitative and quantitative methods. The data collections were interview, observation, documentation techniques, and literature review. Triangulation used as the data validity test. The result shows that lecturer and students have adapted with the situations. The lecturer uses virtual collaborative learning method by optimizing the use of ICT. The lecturer shares instructional videos as a media that helps students to learn. There are opportunities and obstacles in implementing online learning especially in the dance learning. Online learning makes students practice the dance independently. It is also not limited by distance and time. *Semarangan* dance style's learning has several distinctive motion techniques, so the difficulty is in giving feedback to students directly because the lecturer couldn't touch the body parts that need to be fixed with certain techniques.

Keywords: *Semarangan* dance, learning method, ICT

1 Introduction

Indonesia has various traditional dances as one of the cultural heritage that needs to be preserved as an effort to empower national identity. One of the agents that plays role in the preservation of these traditional dances are universities. Universitas Negeri Semarang has an A-accredited Department of Drama, Dance, and Music Education. As the university which results prospective dance educators who are professional, discourse and the future needs have to be noticed for the students' provisions. The dance learning will run effectively when the learning method used is in accordance with the characteristics of material and resources.

Learning method is a systematic way done by the educators in the delivery of material. Educators need to master various learning methods so that students can easily absorb the material and be enthusiastic about learning. The selection of learning methods needs to pay attention to the learning goals (stated in the learning plan), learning models, students' characteristics, learning materials, time, and infrastructures. Several types of dance learning methods that are widely practiced include lectures, question and answer method, discussions, demonstrations, drills, experiments, and team teaching method [1].

The right dance learning method will affect students' ability to absorb and explore their potential for the better [2]. Classroom learning must pay attention to the characteristics of the material and the abilities of the students. Students have different initial potentials as well as the

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ability to absorb different materials. Dance learning should be process-oriented, so that students' learning progress can be noticed. A dance lecturer must have the ability to implement both dance and pedagogy. According to Huddy, this dual role is called *"The Teaching Artist"* [3].

The ideal condition of dance learning suddenly changes due to the outbreak of Corona virus that hits various countries in the world including Indonesia since February 2020. The government, especially the Ministry of Education and Culture decided that learning should be done online at home, and so with the dance learning activities in the Dance Education Study Program, UNNES. Therefore, lecturers are required to quickly adapt to the online learning models. Online learning requires collaboration of appropriate learning methods. Educators need to master ICT (Information Communication Technology) as a tool in online learning. When viewed from the students' point of view, technology provides opportunities to motivate students in learning and has a collaborative nuance [4]. However, these opportunities can be a threat when students have difficulty in accessing the internet or have limited facility. Nevertheless, education in universities needs to continue to improve accessibility to the realm of technology [5]. The use of ICT in universities' teaching is considered as a must in adapting to the new situation.

The Department of Drama, Dance, and Music especially the Dance Education study program manages to maximize online learning. The types of courses in this study program include practical and theoretical subjects. One of the practical courses that students have been waiting for is *Tari Pesisiran Jawa Tengah I* (Central Java Coastal Dance Course I). This course is a characteristic of the study program because the material taught is regional dances of Central Java such as the *Semarangan* dance. *Semarangan* dance learning in the 3rd week of 2019/2020 odd semester lecture was conducted online according to the rector's appeal. Lecturers and students try to adapt to the technology. The strength of online learning is that it is participative while dance is also a participative activity which requires physical presence. Technological advances have created opportunities for dance educators to consider appropriate learning methods [6]. Learning dance practice online requires specific strategies and methods to achieve its goal. The research urgency of dance learning methods is carried out because of the Covid-19 outbreak which requires lecturers to be able to adapt. The lecturers must be active and creative in using the right method by utilizing various online learning applications. Based on the insights and experiences of lecturer and students in *Semarangan* dance learning, the results of this research contribute as reflection and input for the implementation of traditional dance learning in universities as home of the civilization development science.

2 Method

Based on the problems identified, the type of research used is a mixed method research. Mixed method is the development of a research type that combines qualitative and quantitative research characteristics. Usually used in social science research to help reinforce a more comprehensive evidence and perspective [7]. The researchers use this method because in this research, the researchers need to describe adaptation strategy which is done by the lecturer in implementing *Semarangan* dance learning method in the middle of the outbreak. The authors also need to find out students' responses to the method that is being implemented through the questionnaire (quantitative data). Qualitative research is used in describing adaptation strategy in *Semarangan* dance learning method. Qualitative research is a type of research aims to understand what is experienced by research subjects, such as behavior, perception, motivation,

action, etc. holistically and descriptively in the form of words and language in a natural context [8]. Quantitative research is used as a tool in retrieving data in the form of students' responses in one class. Researchers took the data through observation, interview, documentation, and questionnaire.

Observation was made online by joining the *Google Classroom* in *Tari Pesisiran Jawa Tengah I* (Central Java Coastal Dance Course I) class. Researchers could observe the interactions that occur in the *Google Classroom* and the methods used by the lecturer. Interview was conducted directly with Mr. Bintang as the lecturer. Documentation was done virtually using researchers' documentation and research documentation. The authors used questionnaires created with Google form and distributed them to students who have taken *Denok* dance material through the *WhatsApp* group. There were fifteen respondents who gave their responses to the application of the learning methods that have been carried out. Data from the observation, interview and documentation was followed by students' responses data through questionnaires. Triangulation model was used in the data analysis.

3 Result and Discussion

3.1 *Semarangan* Dance Style

The emergence of *Semarangan* dance begins with the presence of *Gambang Semarang*. It is a performance art which combines music, dance, sound art, and comedy [9]. The research from Tristiani and Lanjari showed that dance form in *Gambang Semarang* performing art does not have particular performance pattern, but it contains various distinctive motions such as *ngeyek, ngondhek,* and *genjot* [10]. This study supports data about the form of *Semarangan* dance style. In its journey, a dance development based on cultural characteristics of Semarang has emerged and is developed by several artists and art academics. The development of *Semarangan* dance is caused by the creativity of several artists and art academics and the government support. Some of the dances are *Gado-Gado Semarang* dance, *Denok* dance, *Warak Dhugder* dance, *Geyol Denok* dance, etc.

One of UNNES lecturers who plays role in the development of *Semarangan* dance is Drs. Bintang Hanggoro Putra, M.Hum. The dance is called *Denok* dance. The dance expresses the agility of Semarang young women which is expressed through the agile and dynamic motions. The name "*Denok*" is taken from the term "*nok*" which is a term to address young women in Semarang. Currently, *Denok* dance is being one of the learning materials in *Tari Pesisiran Jawa Tengah I* (Central Java Coastal Dance Course 1) taught by Drs. Bintang Hanggoro Putra, M.Hum. The students feel lucky because they get the materials directly from the dance creator.

The basic motions of *Denok* dance is based on *Surakarta* dance style which is the classical dance in Central Java, but *Denok* dance developed to be more agile and dynamic. So the dance is classified as type of traditional creation dance. The movements of the feet and hands that go ups and downs in *Denok* dance represent the geographical conditions of Semarang which are highlands and lowlands. The dance structure is divided into 3 parts following its melody form and the rhythm pattern of the song. Mr. Bintang named each part as Part A, Part B, and Part C. Among the various motions there is a connecting motion called "*sendi"* with a hand motif called "*ngincup"*. *Ngincup* means the meeting of the thumb and index finger, but not sticking together while the other finger is straight to the side. The types of movements that are typical in the *Denok* dance consist of *jalan tepak, ngeyek*, and *ngondhek*. The characteristic of the movements needs to be observed by anyone who learns this dance.

3.2 *Denok* Dance Online Learning: No Longer an Option

Covid-19 has changed the dance learning model. Before the pandemic, online learning was an alternative. Now, it is an obligation. Lecturers should be more flexible in choosing the platform used in learning [11]. Corus revealed that an educator needs to have the ability to network, both technologically and socially, or what is called *"The Networked Educator"* [5].

UNNES urges all learning activities to be done online. UNNES facilitates an LMS called *Elena* as a medium of the learning activities. Through the application, lecturers can upload learning materials and evaluations in the form of documents, photos, videos, and audio. The facilities provided are able to bridge the needs of lecturers to communicate with students, upload material, design quizzes and assignments, record attendance, conduct written and oral discussions, and many more. Lecturers of UNNES, including Mr. Bintang has to adapt in order to know and learn about *Elena*, and so with the students. Various student responses of course appeared. Some were shocked (Javanese say '*gumunan'*) and felt unprepared. Some were ready and immediately adapted to all existing abilities and facilities. The point is not everyone is ready for change. The creative teachers have ability to make the most of every situation. They have a receptivity to change that allows them to greet new opportunities with glee rather than panic. They are curious [12].

Based on the data obtained through UPT TIK UNNES, the data on the use of *Elena* as of April 27, 2020 for the Dance Education Study Program, only about 22.55% of the class used the app. It means that not all of the lecturers use *Elena* in classroom learning. Broadly speaking, there are two main factors behind this, namely the human resource factor and the *Elena*'s accessibility factor. Most of the lecturers and students are still confused or technologically illiterate in using the application even though there is a guide distributed by UPT TIK. Next is the accessibility factor that is not optimal and is still being improved, especially students who live outside the region. They sometimes experience problems in accessing *Elena*.

In the online learning of *Denok* dance, Mr. Bintang has not utilized *Elena* to its full potential. The material has been uploaded to the application. However, learning activities are mostly done through *Google Classroom, Zoom*, and a *WhatsApp* group. Based on a survey through questionnaires, one student said,

> "On the *Zoom* meeting, we can do dance practice with lecturers. The lecturers can also provide materials and fix the dance movements through video teleconferences rather than just give instruction through a *WhatsApp* group. In addition, *Google Classroom* is very supportive for collecting practical assignments."

In general, *Denok* dance online learning that was done in the even semester of 2019/2020 could take place. The discussion about the adaptation strategies carried out by the lecturer in choosing learning method is described in the next discussion.

3.3 Adaptation Strategy of *Semarangan* Dance Learning Method

The learning goal of *Tari Pesisiran Jawa Tengah I* (Central Java Coastal Dance Course I) is that students can understand and practice Central Java regional dance material both for boys and girls. One of the dances learned is the *Denok* dance from Semarang. The duration of the dance is about four minutes and the movement techniques are not too difficult, but they have distinctive features. The spirit of learning dance is the physical activity carried out by lecturers and students.

Dance learning has important components that are interrelated to achieve learning goals. One of the components discussed in this study is the learning method. According to Djamrah [13], the basic consideration for the teaching method selection is based on the following factors:

1) Goals oriented 2) Individual differences of students 3) The educators' ability 4) Characteristics of learning materials 5) Class situation 6) Adequate facilities 7) Strengths and weaknesses of the method. The following explains how the selection of *Semarangan* dance learning method during the Covid-19 outbreak towards the situation in the classroom, material that is being taught, and completeness of the facility.

First, in contrast to offline lectures, online lectures make learning space and time to be more open [14]-[16]. The lecturer uploads the *Denok* dance learning video to Google Classroom and *Elena*. The students learn by opening and studying the video anywhere and anytime. When technology and information were not as sophisticated as now, lecturers were the only source of learning so face-to-face activities with lecturers in class were an opportunity not to be missed. Now, students can repeatedly observe in detail the dance movement techniques taught by the lecturer through a video. There are two types of video uploaded. The video of part-by-part dance demonstrations and the lecturer's review video. Students learn based on video demonstrations. They also send their learning results in the form of videos uploaded to Google Classroom. At the next meeting, the lecturer gives a review based on the video uploaded by the students. The lecturer explains in which part they made mistakes and gives examples of the correct motion. Based on this, the lecturer has adapted to the current situation through the use of information technology in the form of the ability to create learning media (videos) and master distance learning platforms.

Second, the material taught is a dance practice material so the lecturer uses demonstration method complete with the explanations. Demonstration is carried out in detail on every motion such as feet, body, hands, and head motions. Then, it is followed by repetition using accompaniment. Although there are a lot of videos of *Denok* dance on the internet, it is not right if the lecturer does not provide the correct signs. Many of the videos do not match the original motions. The uploaded video is a performance recording during the show not a learning video. This is why students need to be careful in imitating the motions. In this case, lecturer tries to optimize the video like a digital laboratory. *Denok* dance has various distinctive motions namely *ngeyek, ngondhek,* and *genjot.* All of them have special techniques that the students need to master. During the learning process, lecturer has classically emphasized both in the learning and evaluation videos at each meeting. As revealed by Fadlilah that videos can facilitate students' learning needs which include visual, auditive, and kinesthetic aspects [17]. The students become more enthusiastic about learning if the videos displayed contain systematic, gradual explanations, and clear instructions.

Third, complete facilities. The lecturer has identified the complete facilities that are owned by him, the facilities provided by the campus, as well as the facilities owned by students. Therefore, lecturer chooses to use collaborative learning method. The lecturer uses more than one learning method by utilizing several learning platforms. The lecturer does not only upload the material through *Elena*, but also on *Google Classrooms*. Just in case there are students who experience difficulties accessing the *Elena*. Communication with students is carried out through a *WhatsApp* group. *WhatsApp* is easily accessed and is considered to be more familiar to various backgrounds of Indonesians. A *WhatsApp* group is used as a forum for communication, question and answer, and discussion with the students. If there are things which are unclear, the lecturer gives the opportunity for students to ask questions through the application.

Based on that phenomenon, the researchers observe the materials being taught, the completeness of facilities, and the learning methods used by the lecturer after adapting to the current situation. The lecturer divides materials into four meetings. The first meeting contains the *Denok* dance synopsis and the dance practice part A. In the second meeting, the lecturer makes a review of Part A's assignment and then followed by Part B. The third meeting is Part

B motions' review and dance practice Part C. In the fourth meeting, the students do all part of the dance using accompaniment. The adaptation used by the lecturer in the *Denok* dance learning method is as follows: a) Use collaborative method. It combines several methods in one meeting by using more than one learning platform; b) Reduce lecture method. The lecturer makes important points in a power point video uploaded to *Elena* and Google Classroom; c) The demonstration method is still used, but in the form of videos. It minimizes direct virtual meeting with the students through Zoom meeting. Zoom is only used in the urgent situation. The students can repeatedly play the videos whenever and wherever. The videos are divided into several parts according to the material per meeting; d) The drill method is done indirectly by assigning the students to send the videos of their learning outcomes of *Denok* dance. This assignment make the students practice repeatedly until they get good results; e) The lecturers keep using the question and answer method by giving the students opportunity to ask through the comment section in the Google Classroom or *WhatsApp* group. The question and answer can be done between students to see their activeness and level of understanding of the materials. Peer-review that is carried out online can increase positive feedback [18].

Based on the result of a survey of fifteen students participating in *Denok* dance learning, 62.5% of the students strongly agree that the learning method used by the lecturer can support the achievement of learning goals and 50% of the students feel that the method is easily accepted. These results indicate that in general, the method is acceptable and facilitates the students to learn about the dance.

3.4 Opportunities and Obstacles in the Online Learning of *Semarangan* Dance

Online learning has obstacles and challenge. Opportunities in the online dance learning in a bold way can work well because of the availability of the platforms that are easily accessed and bridge the needs of dance learning. Lecturers can use several platforms that are considered effective and efficient [19]. UPT TIK UNNES continues to strive to improve the system on *Elena* in order to facilitate the needs of the lecturers, students, and university leaders. Support from the institutions and the government is essential in optimizing online learning.

Obstacles in the online dance learning include the availability of internet data as well as the facilities owned by the students. Students have to be smart in finding the cheap cellular telecommunication operators that reach the internet signal in where they live. Not all of the students have adequate facilities. Some of them find it difficult to save their video recordings because their phones are running out of storage. The next obstacle is to deal with the characteristics of the students who are inactive in the learning process. Disciplinary control through assignments can be done through the system. However, lecturers need to use a humanist approach to determine the condition of each student.

Hidayati and Putra said that the students feel dissatisfied with online learning provided by the lecturer. Based on the data, the level of satisfaction reduced in education, and the students do not have a learning process but should do the tasks. The responses of lecturers in online learning are slow [20]. Based on that research, online learning is difficult to accommodate the different characteristics and competencies of students. In addition, lecturers' evaluation towards student movements can only be done either through the writing, audio, or video but cannot directly touch certain parts of the body which are not right in doing the movements. It is difficult for students to make corrections and even not to realize their mistakes.

4 Conclussion

Covid-19 outbreak has forced *Semarangan* dance learning in UNNES to be done online. However, it creates opportunities for the lecturers to be creative to adapt by formulating the appropriate learning method to achieve learning goals. Based on several considerations in choosing learning method, lecturer used collaborative learning which utilize various learning platforms such as *Elena*, Google Classroom, *WhatsApp* group, and Zoom. Lecturers make videos which contain lesson materials, evaluations, and assignments to be shared with the students. Lecturers and the institution continue to strive to optimize online learning during this pandemic.

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The Effectiveness of The Mobile Learning Based on Project Based Learning Model to Improve Students Critical Thinking Ability

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Abstract. The Covid-19 pandemic has made the learning system change drastically from eye to eye gatherings to on the web learners from home. The capacity to think basically is vital for students as an important asset to succeed in life. This examination expects to decide the adequacy to improve student basic reasoning abilities. The research technique utilized is semi exploratory with a plan posttest just benchmark group plan. The sampling technique used in this investigation is a cluster random sampling technique. The data collection technique used the observation method and the distribution of questionnaires to determine the thinking students' critical skills in the subject of food processing and serving. Data analysis in this study used a statistical T-test to analize the treatment classes, namely pre-test, post-test. The outcome of the data analysis show that the application of Project-Based Learning based mobile-learning can improve student basic reasoning abilities.

Keywords Project-Based Learning, Mobile Learning, Ability Critical Thinking

1 Introduction

Online learning is one of the learning methods recommended by the government to limit the development of the Covid-19 virus by Circular Number 4 of 2020, namely the Usage of Instructive Strategies in a Crisis for the Spread of Covid Illness (Coronavirus), dated march 24, 2020. The most basic policy that must be done in this pandemic situation is to change the way students and teachers teach and learn from home. The teacher has made various maximum efforts to maximize the web based learning measure so that the effectiveness of learning can be fulfilled to achieve learning objectives.

The use of technology and information is expected to be able to broaden students' insights with a variety of scientific digital literature to increase their insight, knowledge, and skills. Online learning with access to information that is open to all the material they are learning is freely available, and students can seek more truth about the knowledge they are learning, can choose the right information to facilitate the learning process, connective assesses that knowledge is spread across the network of connections because learning is the ability to create and maintain these connections and students become co-creators of knowledge with teachers/teaching lecturers [1]. For this reason, the learning process must be able to be designed as comfortable as possible so that learning interest can grow into a fun, meaningful habit, the spirit of work is maintained by providing clear and structured instructions, according to the conditions of students in general without losing the essence of learning.

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The effectiveness of online learning must continue to be developed with an interesting process to be able to increase the competence of students in each subject [2]. In his opinion that the learning outcomes of students using e-learning are more effective than using the lecture method, this happens because e-learning learning is carried out anywhere and anytime. With a good understanding and increased learning motivation, the learning outcomes obtained by students will increase. Firman and Rahman stated, web based learning has adaptability in its execution and can energize free learning and inspiration to be more dynamic in learning [3]. Distance learning empowers the rise of social separating conduct and limits the presence of understudy swarms with the goal that it tends to be considered to decrease the potential for the spread of Coronavirus. With online learning, the teacher makes it easier to provide material to students by providing links or sites that are relevant to the subject being discussed so that it can be discussed together as lesson material [4]. Argues that increased skills furthermore, force in utilizing e-learning methodologies, the consideration of educators to the companion climate of student, particularly in collaboration and rivalry among student, and keenness of student in associating and building up great and sound participation in the scholastic field with their friends are things which are vital in improving understudy accomplishment.

The learning process online at SMK PGRI I Badung with limitations learning tools online such as a computer or smartphone, internet quota is limited, the signal uneven student residence and, the ability to use technology that is uneven from teachers and students is a fundamental problem that still needs to be addressed. In addition to the mastery of competence from the cognitive aspect and the effective aspect of mastery of the psychomotor aspects, efforts are made to be balanced and evenly distributed with other competencies by presenting project-based learning in practical activities in the laboratory. The policy of learning from home does not allow students to work on projects with different facilities and infrastructure such as in schools. Research Cahyaningsih *et al.* shows that the regular technique (vis-à-vis) is as yet viewed as better by the understudies of the e-learning since it is more obvious the material and simpler to likewise cooperate with instructors [5]. Hikmat *et al*. stated that online learning with Zoom and WhatsApp is only effective for theory courses, whereas in practice courses and online lecture courses are less effective [6]. Based on the outcome these studies researchers interested in conducting research Effectiveness of Learning project-based learning oriented-based products with a mobile-learning To Improve Critical Thinking Skills In SMK PGRI I Badung nature carries learn from home by using a smartphone connected to the Internet network to improve critical thinking skills when accessing information and teaching materials with a data search engine (searching) without any intervention from other parties.

2 Literature Review

In practice, online learning needs the help of cell phones, for example, cell phones, tablets, and workstations which can be utilized to get to data anyplace and whenever [7]. The rapid development of mobile applications with worldwide popularity has contributed greatly to the life and the learning process. For example, it offers numerous chances, just as difficulties, to plan a brilliant "versatile instructional method" with an emphasis on understudy focused learning [8], helping to implement learning models to improve learning outcomes [9] and students perceive the use of mobile devices as a positive process [10]. Mobile-Learning is an alternative learning model from home that is often used by teachers during a pandemic, students,

most of whom already have smartphones, quickly learn to adjust to the learning being carried out.

Project-Based Learning (Project-Based Learning - PPA) is a learning strategy that employments a project/activity as a medium. Students believe that hard work in doing Project Based Learning assignments will get satisfaction and appreciation. Students feel lucky to be involved in learning with this curriculum and it is very unfortunate if they cannot participate in it [11]. Educators by and large report that partaking in PjBL assists their understudies with acquiring abilities and qualities, for example, coordinated effort and collaboration, basic reasoning and critical thinking, inventiveness and development, self-heading, and relational abilities [12]. JPL is an inside and out examination of a genuine theme, this will be significant for the consideration and endeavors of understudies. In this examination the means of an undertaking based learning model are as follows:

Table 1. Syntax for Project Based Learning Model (PjBL)

Learning steps	Lecturer activities
Stage 1 Define basic questions	Explain learning objectives, motivate students, create and determine basic questions that must be discussed through mobile-learning based learning
Stage 2 Create a project design	Facilitating students; make, determine product design by compiling careful planning. (the guidance process is carried out online based on mobile-learning)
Stage 3 compiles a schedule	Helping students plan to schedule in prepare work with the guidance of online-based mobile-learning and validate implementation schedule
Stage 4 Monitoring progress project	Monitor the implementation of activities, progress is on schedule, and verification of data following the plans made, observing the progress of the learning process is online
Stage 5 Assessment of the outcomes of the	Assessment and provide reinforcement of the process and student work
Stage 6 Evaluation of experience	Conduct a thorough evaluation of student work from planning, processes and work results as well as evaluation of aspects of online learning based on mobile-learning

Critical thinking is a rational response to questions that cannot be answered with certainty and for which all the relevant information may be available. Is reasoned thinking, reflective that focuses on efforts to determine what to believe and do [13]. Indicator of basic intuition abilities in this examination are According to Ennis [13] that includes five groups thinking skills, which contains twelve indicators as presented in Table 2, namely:

Table 2. Indicators of Critical Thinking Ability

Ability Thinking	Indicators
Basic clarification	1. focuses on questions 2. analyzing arguments 3. ask and answer clear and challenging questions
Basic Support	4. assessing the credibility of sources 5. observing and assessing reports of observations
Concluding	6. deducing and assessing deduction 7. inducing and assessing inducing and assessing 8. values making judgments
Advanced Clarification	9. defining terms and assessing definitions

Strategies and tactics	10. identify Assumptions 11. the determine of action 12. interacting with others

3 Method

The strategy utilized is semi trial with plan posttest just benchmark group configuration, inspecting method in this examination is to use techniques cluster random sampling. Data collection techniques using observation methods and questionnaire distribution to determine students' basic speculation abilities in the subject of food processing and presentation. This study aims to determine the effectiveness of the application of the mobile-learning based Project Based Learning model to improve student basic reasoning abilities. Information investigation in this examination utilized factual strategies t-test (t-test). T-test was utilized to look at the treatment classes, in particular, pre-test and post-test. by arranging the information at that point changed over into the PAP transformation rules underneath:

Table 3. Assessment Criteria

No	Percentage (%)	Criteria for critical thinking ability
1	0 -39.9	Very less
2	40.0-54.9	Less
3	55.0-69, 9	Enough
4	70.0-84.0	Good
5	85.0-100	Very good

Source: Santyasa [14]

4 Research Outcomes and Discussion

Learning model This new mobile-learning-based learning model has been applied for the first time in this school following the government's appeal to limit the transmission of the COVID-19 virus. The results of the data analysis of students' critical abilities in the experimental class showed good development, the effectiveness of the project-based learning model by boldly providing new experiences to all students. The results of the evaluation of students' critical thinking in cycle I or in the pre-test stage are in a good category. There are several problems found in the learning process that requires improved planning for the implementation of learning in cycle II or the post-test phase. Basic speculation abilities in cycle II or at the test stage are in the excellent class. For more clearly evaluation and evaluation in the table 4.

Table 4. Overall Data Analysis

	Highest	score lowest	score Average
pretest score	64	44	56
Post	99	81	90

Data presentation of students' critical thinking abilities on each aspect of the indicators studied in the pre-test and the post-test is presented in the following table:

Table 5. Analysis of Data per Aspect of Critical Thinking

No	An aspect of Critical Thinking	Pretest Score Posttest	Score
1	Basic Clarification	60	88
2	Basic Support	50	86
3	Summing up	57	91
4	Further clarification	51	93
5	Strategies and Tactics	58	92

Based on the calculation of the normality test, it is used to determine the results of research in classes with normal distribution or not. The normality test with a significant level is above 0.05 means that it is normally distributed. In this case, the data is normally distributed; it can be seen following table 6

Table 6. Normality Test of

Group	Kolmogorov-Smirnov			Shapiro Wilk		
	Statistic	df	Sig.	Statistics	df	Sig.
Pre-test	0.130	35	0.200	0.966	35	0.335
Post-test	0.132	35	0.128	0.958	35	0.203

Next homogeneity of variance test is performed to determine whether the sample group has the same variance or not. The significance level of the variance homogeneity test is 0.05 which means the variance is homogeneous. The results of the research can be presented in table 7.

Table 7. Homogeneity Test of

	Levene's Statistic	df1	df2	Sig.
Pretest Posttest	0.001	1	68	0.980

Next, an independent sample T-test was carried out which aims to compare the means of the two paired groups, namely as follows: 1). the null hypothesis (H0): there is no significant difference in critical thinking skills between before being taught with a project-based learning model and after being taught with a project-based learning model. 2). the alternative hypothesis (Ha): there is a significant difference in critical thinking skills between before being taught with a project-based learning model and after being taught with a project-based learning model. Research results can be presented in table 8

Table 8. Dependent Sample T-Test

	Paired Differences					1	df	Sig (2-tailed)
	Mean	Std. Deviation	Std Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1	-33,72	6,74	1,14	-36,03	-31,40	-29,6	34	0,001

Project-based learning models based on mobile-learning are effective and can improve students' critical thinking skills. With the implementation of the learning process from home, students are free to schedule project-oriented learning activities without any pressure from other parties under the guidance of teachers in the field of study online. Project-based learning models based on mobile-learning benefit students in designing learning project designs by searching for and finding supporting material using a smartphone. The online learning process makes it easier

for teachers to monitor and observe the progress of the student-oriented learning process because each stage of the activity is shared online and does not rule out the possibility of students getting input and corrections from friends or the wider community so that the quality of product-oriented learning will be better.

5 Conclusions

Product-oriented learning during the pandemic has brought students closer to the problem-oriented learning process in real life. Studying at home triggers the spirit of learning with all its limitations and tries to find the best solution to be able to achieve learning goals completely. Some of the factors that determine the success of include student characteristics, instructional design, understanding of support for instructors and students, teacher characteristics, technology, characteristics of language skills [15]. new knowledge that is not only oriented to books but also through peers, parents, society, the internet, teachers, organizations, and society of potential consumers who directly provide criticism and also input on their products that are posted on social media. Product-oriented blessed learning project learning based on mobile-learning has been able to arouse students' critical thinking skills in the material being studied and, able to achieve learning objectives, even though the products they produce still need to be refined due to the limited equipment and facilities at home. The results of this study dismiss the responses of research by Hikmat *et al.* and Cahyaningsih's *et al.* research which generally states that online learning is only suitable for theoretical courses whereas practical and field courses are less effective [6],[5].

6 Suggestions

Learning activities through mobile-learning should be structured and designed well by the teacher in the field of study following the material and learning objectives to be achieved, the learning process with a humanist approach needs to be emphasized by the teacher so that students feel the presence of the teacher in the learning process, to find the essence of knowledge that they want to shape and want to build in view of the qualities and instructing and learning competencies. The significance of advancement as combination with the climate alludes to the computerized part learning biological system of Hammond which can oblige learning styles, adaptability, and learning encounters of understudies so they can produce good emotions [16]. Teachers should be able to make learning tutorials via YouTube, google classroom, or media. Online others, as a basic foothold that can guide students in the learning process before students search and find material from other sources. Furthermore, education for the formation of character and character of students can be learned in the process of self-development at any time and anywhere in the life process.

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The Use of Mobile Device in the School for Learning and Teaching System a Literature Review

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Abstract. Students have significantly increased the usage and possession of mobile digital devices, contributing An improvement with the use of personal Phone devices for educational environments. The objective of this research was to assess the viability of integrating digital technology into the learning and teaching process. However, this literature review configuration was how utilizing mobile technologies facilitates educational content for teaching and learning purpose. The review process started with a search engine, Google Scholar and IEEE, to search for papers with keywords by using search and review methods. The impact on student learning of the integration Around portable devices was explored in this study and found It seems that the total impact that use devices is great for education. than using any technology or using desktop computers. These findings indicate That it is important for teachers to use several Various and sundry instruments To build motivated active learning, but each one of them instrument The major purposes are both and constraints.

Keywords: Mobil device, Learning system, Teaching system.

1 Introduction

There has been an increase in the use of android platforms, so the theory is that devices of these type can have important in either the learning and teaching method [1]. Since teachers consider the best ways to encourage learning by using connectivity, it really is essential to explore mobile learning as well as mobile learning interactive learning methods and the right ways to be able to incorporate to build the two successful student learning experiences. The problem is that certain mobile device educational uses trigger for students who have problems using the apps, negative experiences [2]. Despite the implicatures, however, benefits using smartphones for mobile technology to improve current studies have found mixed results on the effects of mobile devices, computer accessibility, various teaching types, and academic achievement. [3], there have been very few experiments in the about when to use mobile devices best and the effectiveness of using it.

The use of devices, personal digital assistants, tablet PCs, laptops and portable computers for digital technology is digital education. [4][6]. Educational technology can be characterized as unrestricted by time and place, in terms of the learning environment, resources and interactions. [7]. Klopfer *et al*. found that mobile learning's success in radically changing mainstream digital learning is based on five features: connectivity, accessibility, responsiveness,

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management instructions and individuality. [8]. These features mean educational technology can support the specific needs of the students who publicly support learning, have greater student learning accessibility, and provide activities that are both timely and faster, thus increasing learning motivation and learner accomplishments.

In a variety of different ways, mobile devices can be used to improve learning experiences. Data and knowledge from learners it can be complex. incorporated limited Spacetime, enabling for both teachers and students, modern forms of immersive and multidisciplinary learning are. The problem for teachers and developers has become one of the best recognizing and figuring out that these methods can be better used to promote learning. 'Phone' typically means mobile and private, like smart phones, with regard to technology. Application of m-learning for students in remote areas in some countries communication and the creation of media material are taken as a benefit.

Hwang et al. presented a wide-ranging discussion of mobile and pervasive learning studies conducted in six publications in the time between 2001 and 2010 respect study about the use of digital technology in education. [5]. This one, Another mobile learning model offers a framework for choosing the right phone Categories apps for various effective learning categories. It is well matched with taxonomy to establish essential learning experiences [9]. The model Fink reaches further Bloom's behavioral taxonomy of trying to learn [10] and consider elements education, including teaching students how and when to learn better and improve life talents that influence social interactions, the capacity to adapt and interact with change [9].

Many other studies have generally used mobile devices as a kind of encouragement application for such a tool promote Inspiration and intention improve commitment, and secondly as a material developers production, with regard to the teaching and learning functions that devices provide in education. [11]. The goal it was for the present analysis to determine the effectiveness of the incorporation of digital Computing into the educational environment. However, this literature review configuration was how the use mobile technology facilitates educational content for learning and teaching purpose.

2 Literature Review

2.1 Analysis Of The study The Use Of Mobile Devices In The Education System

Accoriding Donner in — A Existing Literature reviews 200 recent research of cell phone usage to use in the developed world: change impacts within the developing world to mobile use [12]. He identifies his research into three general themes, with Mobile Effects on Education being one of them. A large number of studies in Tanzania [13] and Thailand [14] Evaluate cell phones as an e-learning aid, Donner says. Both claim that mobile simplicity, affordability and portability create it a perfect match In places where PCs and internet connectivity can be limited, for educational initiatives.

Kumar et al. claim that they are handheld devices like cell phones a great medium for providing rural children with educational opportunities in locations days and times that are simpler than formal education [15]. A 26-week research is to investigate the level for whom children use mobile phones happily. such as to access teaching material, cellular phones. Their findings indicate a logical explanation degree Motivation and scholastic learning. Ally Taylor, Koole and Blodgett it specifies that there really is a wide potential for learning from digital phone and offers a structure to help clinicians develop practices suitable for mobile learning.

Cellular applications are rapidly being In the industrialized world, supported, according to Kam *et al.,* and a so many of these phones have digital gaming and photographic systems [16]. Such the equipment is a successful out-of-school device learning vehicle complementing mainstream schooling. In specific, they claim It's by playing video games on mobile phones, learning English as a Second Language [ESL] offers a possibility to be able to significantly extend by making it possible to acquire ESL with in environments that can be more comfortable than school, the context of English learning.

Then with information in real - time of mobile devices in developed regions, Brown states, are necessary can imagine of a prospect in which play on mobile Phones a crucial educational position in developed nations [17]. Brown's according to [17], although there are far more people with mobile technology since there are opinions on how schools work, would be influenced by mobile technologies, most believe the m-learning is starting to put a significant role in e-learning. There are already various mobile technology applications in schooling, from the exchange training content and transactional data wirelessly, to the ability to understand.

A mobile learning analyst has changed his stance upon buying a 3G android phone, according to Anderson [18]. He writes in the remote teaching Foreword: Converting Education and Training Distribution Press, University of Athabasca-The google play store provides every day, I have even more forms (including 75 categorized below apps) that this phone [iphone 3G] will transform Into a universal source of ideas and schooling and ubiquitous information.

With the advantages of convenience (being easier to use and learn) and enhanced connectivity, Many desktop computers perform many of the functions of android platforms. (being usable anytime, anywhere) [19]. Mobile phones are not just communication devices for contact between individuals, according to Prensky; they are literally computers which fit within your pocket, are always there for you, and seem to be on. [20]. Mobile phones can be used, like all electronic devices, to learn.

In their analysis of 154 papers, Hwang *et al* was found the use of mobile and centralized learning dramatically accelerated since 2008; the majority of scientists learned higher education linguistic students and the most commonly studied areas were, computer technology and engineering. Frohberg *et al*. classified 102 digital learning programs and found that, within a physical context and an official environment, most mobile learning activities actually occurred, like a general education environment, in various settings [21]. Mobile phones' effect on current academic has been investigated by Wong *et al*. [22]. Automated teaching refers to a learning process. paradigm that in a number of conditions, students can learn to whenever they choose to learn, and that those who will easily be able to and rapidly shift from one scenario or context to another [22],[23]. A selection out of 54 papers on the use of mobile devices for the purpose of promote learning effortlessly was selected All 54 papers were analyzed and found to have 10 characteristics, including formal and informal learning, personalized and social learning., and multi-duration and location learning.

2.2 Learning and teaching system

Mobile device learning & teaching has been represented and identified in a multitude of ways. Transportable technology such as cell phones, laptops, tablets, desktop computers, and netbooks have been used in mobile devices [24]. Keegan acknowledged that the actual mobility of the system should be the subject digital learning for [25]. In other ways, m - learning can be words, “restricted to learning on devices which a lady can carry in her handbag or a gentleman can carry in his pocket” [25]. Moreover, Traxler and Huemer established equipment to which trainees are used to learning. “carrying everywhere with them” and “regard as friendly and personal” [26]. Many of the principles that the publications contain concentrate primarily innovations; some focused on the learning process; others focus on technology; aim to incorporate many of them [27]. Crompton, more commonly, has confirmed that Phone education is an improvement to the Sharples (Sharples & Taylor) concept. “learning across multiple contexts, through social and content interactions, using personal electronic devices” (“Defining Mobile Learning”) [28]. Mobile devices were identified as In this article, Designed to control devices, including tablets or Phones computers with continuous Internet access, such as through a cellphone or Wi-Fi connection.

For teaching and learning purposes, it can be digital learning. described usage of android platforms, such as mobile phones, tablets, and portable sensors. Features like social connectivity, portability, sensitivity to context, and uniqueness; mobile appliances also Increased computer-based education used incorporated for education - learning environments [29]-[33].

For example, not just digital technology, but promotes conventional Teaching in class discussion in terms of supporting creative teaching methods while increasing the influence of various teaching approaches, such as collaborative learning, [34], inquiry-based learning [35] and game-based learning [36]. In addition, attendees of different evolutionary ages, through the popular deployment of digital learning by pre-schoolers [37] to graduate students [38][39][40].

The problem is that certain mobile device educational uses trigger for students who have trouble using the applications, unpleasant experiences [2]. It could also be learners overwhelmed multitasking devices and discouraging fellow students from using technology [41]-[44]. Instead, some report on digital technology, increases the understanding for interactive education by students [45]. Mobile devices and software for education should not be able to “complicate the learning process, but facilitate mobile learners' learning” [46]. Teachers use smartphone applications and response systems for this purpose. in the classroom enabling students to respond to teacher questions based on the content of the course. It's been shown to increase student learning standards, engagement and real test scores. [47],[48]. Though several teachers a 2013 study of desktop interactive learning studies found a lack of adequate research on existing communication devices and small groups in their classes. [49]. A 2016 schema of 110 research and quasi-experimental studies conducted around 1993 and 2013 investigating the effects of mobile device implementation on student learning found that the overall effect of using mobile phones has been better for learning than using portable devices or not using devices at all [11]. Via mobile help, the throughput rates of learners could be increased and the consistency of the student environment improved. Classroom environment, could situate it self Limited in practice where research had previously taken Position.' The wireless technology sector is evolving extremely rapidly. Almost all of the innovations contribute to higher viability of m - learning and the complexity of the course content that can be designed for mobile learning. This has greatly promoted the expansion of digital learning and contributed to the for much of mobile phone classes. Illustrated approaches to learning of relevant Mobile-based learning practices are summarized below An summary of the challenges of integrating mobile devices into educational systems should be given.

Using Cole and Chan's concept, It is possible to view student participation as “the extent of students' involvement and active participation in learning activities” [50]. Student engagement is an important learning tool that has many educational advantages for students through active participation in the classroom. [51]-[54]. The faculty and students consider shared learning environments or small groups as one successful method for fostering student participation and learning [55]. The overall satisfaction of learners there was a greater satisfaction with small groups than their satisfaction with online discussions or complete-class in one report [56]. Such students indicated it was more probable that small groups were more willing to "stimulate interest" and help them engage in the material. Although While teachers can use highly structured small groups with transparency mechanisms incorporated into several strategies for pursuing student engagement have a good chance of involving more students than broader group conversations. [57]. A few of these accountability measures involve assigning assignments to each student and requesting a written response from small groups based on their conversation, so that students engage actively during the course of their discussions collective classroom assessments [58].

It has also been shown that mobile learning is useful in enhancing student flexibility, involvement, and communication [59][60][61]. Studies have proved that the use of mobile devices for education improves interaction via the immediate provision of access to the information and improving learning fingers [62], but caution that smart phones hen training has been deliberately designed to enable optimal use of the technology, it is most conducive to learning.

3 Method

In colleges, the use of mobile devices for programs learning and teaching is the subject of this literature review. The review process started with a search engine, IEEE and Google scholar, By use of search and review methods, in order to locate posts with keywords: “smartphone, android, mobile device, learning and teaching system”. The conditions for inclusion in this research were as follows:

(a) Quantitative outcomes of the relationship between mobile device use and the teaching method for learning
(b) The research was done in the field of education.
(c) Using the English language
(d) The absence of dissertation and thesis

A total of 5307 papers have been collected from the literature hunt. There were 2183 articles from Search engine, 1566 articles from IEEE and 1558 articles from Google scholar. Among the 5307 articles, 686 duplicates were excluded, and 236 were identified based on the title and abstract review. A total of 40 articles were fully reviewed by the researchers except for 181 articles without full text among 236 articles. Among them, 141 were no mobile learning, no android, no learning and teaching system. A total of 12 articles were finally selected and among them. The flow diagram of the study selection system literature revie process is shown in Figure 1.

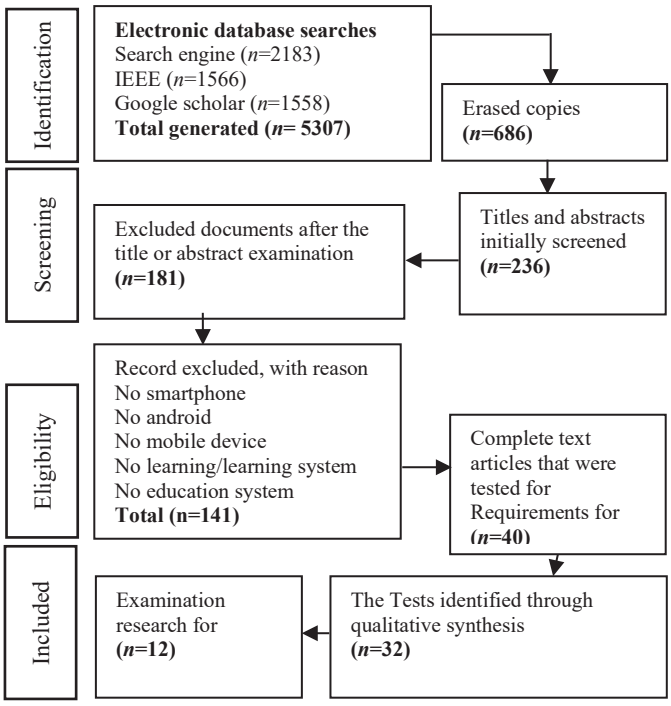

Fig.1. Flow of study selection systematic literature

Table 1. Mobile Device Use in the School for Teaching and Learning System

Author(s) and year	Title	Country	Methods of Research	Sample	Result	
					The Use of Mobile Device	Learning and Teaching System
Banavar et al. (2014) / [63]	Embedding Android Signal Processing Apps in a High School Math Class – An RET Project	Arizona	Research and Development used Smartphones	30 students	Smartphone android base	Signal processing learning
Chin and Chang (2011) / [64]	A Sustainable ICT Education Ontology	Korea	Designing Data Flow Diagrams and Designing Entity Relationship Diagrams	ICT educational provider	Method to sustainable ICT education as a way of resolving problems related to low student enrollment in the sector	In related areas such as ICT curriculum, ICT work, ICT skills and ICT testing, to provide clearly specified definitions and to identify the relationships between them
de Lima et al. (2014) / [65]	Application of Remote Experiments in Basic Education through Mobile Devices	Brazil	Research and Development used Smartphones	Brazilian Public High School Second Year	Remote Smartphone Experimentation (MRE)	Virtual Learning Environments (VLE) as teaching and learning community resources
Futcher and De Kock (2016) / [66]	Mobile Device Usage in Higher Education Institutions in South Africa	South Africa	Individual patient level case study summary	213 changes in higher education	Mobile device (laptop, tablet, e-reader, smartphone)	Academic purpose
DePue et al. (2016) / [67]	An Android App for Spatial Acoustic Analysis as a Learning Tool	USA	Research and Development used Smartphones	The effectiveness of this program has not yet been formally tested, but a favorable outcome is indicated.	Smartphone android base	applied to spatial acoustic analysis

Author(s) and year	Title	Country	Methods of Research	Sample	Result	
					The Use of Mobile Device	Learning and Teaching System
Heflin, Nguyen, and Shewmakesr (2017) / [68]	Impact of mobile technology on student attitudes, engagement, and learning	USA	Quasi-experimental research design and multimethod model of analyzing effectiveness	159 students in two first-year general education college courses	Mobile learning and collaboration	how mobile technology affects the demonstration of critical thinking in written products, stood out within our data set
Jisha et al (2018) / [69]	An Android Application for School Bus Tracking and Student Monitoring System	India	Research and Development used Smartphones	administrator, faculty, parents and drivers	Smartphone android base	Student monitoring and bus tracking
Jeno, Grytnes, and Vandvik (2017) / [70]	The effect of a mobile-application tool on biology students′ motivation and achievement in species identification: A Self-Determination Theory perspective	Norway	Research and Development used Smartphones	71 second-year bachelor students at a large university in Norway	Smartphone android base	mobile application tool for biologist
Kidi et al. (2017) / [71]	Android Based Indonesian Information Culture Education Game	Indonesia	Research and Development used Smartphones (waterfall methodology)	100 respondents	Smartphone android base	Indonesian culture education game
Mwandosya and Montero (2017) / [72]	Towards a Mobile Education Tool for Higher Education Teachers: A User Requirements Definition	Tanzania	Design science research	161 academic staff	The specifications of a tool for mobile education	Mobile Education Tool Prototype Design Criteria

Author(s) and year	Title	Country	Methods of Research	Sample	Result	
					The Use of Mobile Device	Learning and Teaching System
Zuilkowski, Piper, Strigel and Kwayumba (2016) / [73]	Does technology improve reading outcomes? Comparing the effectiveness and cost-effectiveness of ICT interventions for early grade reading in Kenya	Kenya	ICT Study	The sample measured in January 2013 was 1580 students and in October 2013, 1560 students.	e-reader and tablet	ICT approaches will provide literacy learning benefits for learners in early primary school grades.
Sung et al. (2016) / [39]	The effects of integrating mobile devices with teaching and learning on students' learning performance: A meta-analysis and research synthesis	ROC	Quantitative systemic research	110 participants	Mobile device (laptop, handhelds, tablet)	Teaching and learning integrated
Sung et al. (2019) / [40]	The quality of experimental designs in mobile learning research: A systemic review and self-improvement tool	ROC	The Rigor of Education Experiment Designs checklist	342 observational studies conducted from 2006 to 2016 in refereed journals	Mobile device (laptop, handhelds, tablet)	mobile-learning studies exhibited experimental classification
Tang, Zhou, and Chen (2015) / [74]	A Game-based Curriculum and Learning Management Mobile Application for College Students	China	Research and Development used Smartphones	A classes	Smartphone android base	curriculum and learning management system
Yumang et al. (2017) / [75]	Attendance Checker for Students of Mapúa University	Philippines	Research and Development used Smartphones	A classes	Smartphone android base	Attendance checker

4 Result and discussion

Based on the assumptions drawn from it though, analysis of the literature, the authors found that analysis of literature conducted in peer-reviewed journals the use of mobile devices as tools in school interventions has shown the net impact the use of android platforms in learning is better than the use of personal computers or the use of mobile phones as an intrusion.. Through we identified that many possible variations of applications for mobile devices, software and operation periods were found in the research. were applied to various user ages, subject concepts, teaching methods, and implementation environments. For handhelds, the impact of such use was greater the use of research instruction, along with lectures and self-learning, was more effective than the use of laptops. [73][74].

In different organizations and in different countries, study has performed out has been on the Implications of Mobile devices in the school system for learning and teaching. Table 1 indicates that study in schools and universities were conducted. The study findings have generally shown a positive and important impact between the usage of smartphone in schools for teaching and learning system. The findings this study raises concerns about the use of mobile devices in the classroom, specifically in the creation of academic objects designed to demonstrate analytical reasoning. [68]. Student work products made on mobile devices were rated significantly lower than those produced on laptop computers or paper and pen computers on evidence of critical thinking demonstrated by evaluation. Moreover, the pattern suggests that there was a substantial gap between the Heads-up group and the other two in participation and disconnection, slightly less engaged behaviors and more disempowered behaviors are seen by the Heads-up party. Like past scholars, have noted, it is important to carefully consider the design when designing instructional programming to ensure instead of complicating or distracting from learning, the mobile device and educational application offer opportunities to enhance student learning.. This was a research weakness that could have affected the understanding of such behaviors. Finally, using language, eye contact, gestures, and stance, it was easier to discern student learning through the nature of observational behavior than to discern engagement through the use of technologies..

The problem the educational use of such mobile devices creates negative experiences for students who have trouble using apps. [2]. Despite the suggested benefits of using mobile computing devices to improve computer usability, different however, researchers have typically present contradictory results on the influence of mobile devices on teaching styles and school performance. [76] And very few researchers have analysed how to use mobile devices best and how to do so effectively.

Mobile devices are innovative in a world that is increasingly dependent on connectivity and access to knowledge, since they go beyond the borders of the institutional status of classrooms and lecture halls and their associated communication modes.. In order to be successful, they do not have to be limited to one specific place and time [75].

By using the mobile learning model, through a simplified process/features for interacting with partners and tutors and things using mobile communication network technology, target students have the opportunity to control all materials and information relevant to training on their portable devices. [39][40][70][77][63][65][66] Use of portable devices for learning at school and teaching method is accepted with this paper. The framework proposed offers unparalleled versatility and comfort for teachers to take part in training courses and learning experiencest to overcome many of the limitations present in the characteristics, the full impact

Informatics in the education system ,sector needs to be reconciled and between technology elements, the educational background, and objectives (e.g., curriculum, absent on class, Processes for learning and teaching) and users (students & teachers).

Although most mobile technology research studies use surveys and experimental approaches, this may be partially due to the long-term commitment to educational application. To help with positive thought or meditation, many ventures have used mobile phones for. In addition, the teacher manages most learning tasks using mobile devices, with just a selection of learning process nature activities. There have been very few ventures using cooperatives or groups. collaboration with respect to communication functions. In addition, the overwhelming majority of studies used novice respondents; seasoned participants have been involved in little research. The vast majority of study has been found to concentrate on lower-level data and talents. when sorted according to educational objectives, and neglected higher-level activities such as review and assessment. Finally, using language, eye contact, gestures and stance, it was easier to discern student involvement through the nature of the evaluation activity than to detect engagement through use of technological advances..

5 Conclusion

Although this analysis has shown that mobile devices can enhance education. impacts, extremely long timeframes for action, better alignment of technology and education, and further assessment of higher-level abilities need to enhance the real effect of services for mobile learning. The way mobile devices and educational apps are used should not be they are used. “complicate the learning process, but facilitate educational content. The use of these applications provides teachers with the opportunity to promote significant learning. These review investigated the sindicated that the overall effect of using mobile devices appears to be better for learning than use of desktop computer or not using any technologies. These results suggest that educators can employ many different tools to create engaged learning environments but each tool has both primary functions and limitations. Since this study includes many cases, further research could include performing such a case study on integration with the curriculum and management information system in a school. The next step in our work is to add more interaction functions and knowledge management tools into this system. We truly believe that mobile learning will be an ideal learning style to facilitate our learning

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An Analysis of the Relationship between Students' Metacognitive Awareness and Students' Cognitive Learning Outcomes in Pre-service Teachers

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Abstract. The purpose of this study was to determine the profile of the relationship between the level of metacognitive awareness and cognitive learning outcomes of student biology teacher candidates at Lampung University. This study used a survey research design with a sample size of students. Metacognitive awareness questionnaires and cognitive question sheets were provided in this study. The questionnaire measures eight aspects of metacognitive awareness, namely declarative knowledge, procedural knowledge, conditional knowledge, planning, information management strategies, comprehension monitoring, debugging strategies, and evaluation. Question sheets evaluate cognitive learning outcomes. The results showed that the students had a very good level of metacognitive awareness (54%). There was no significant relationship between metacognitive awareness and student cognitive learning outcomes (r = 0.898). It was concluded that metacognitive awareness did not affect cognitive learning outcomes at levels C1, C2 and C3.

Keywords: Metacognitive awareness, Cognitive learning outcomes, pree-service teacher

1 Introduction

Lecture activities that are specifically designed to develop learning outcomes of students' metacognitive dimensions are not very common. Most educators focus more on the learning outcomes of cognitive dimensions and less psychomotor. Although it was found that some educators designed lectures by involving metacognitive dimensions, their development was not comprehensively measured. Still cognitive learning outcomes are the main consideration in describing the characteristics of students in a course. Lecture activities that involve metacognition activities will get more meaningful learning outcomes. This is because the metacognition dimension is one component in building problem-solving abilities in students in addition to experience, supervision, beliefs and habits in the community [1]. Metacognition also plays a role in recognizing obstacles when solving problems through knowledge and the processes used to direct successful thought processes [2]. Through metacognition, a person will be able to become an independent learner, foster an honest attitude, dare to admit mistakes, and improve learning outcomes significantly [3]. There are three important stages during the metacognitive control process: planning, monitoring and evaluation [4].

Developing metacognition in a person requires strategies in the form of routines that represent specific mental actions and are part of a complex process carried out in order to achieve goals such as understanding what has been read [5]. Someone who has learning difficulties can be caused by not having a metacognition strategy. The form can be in the form of difficulties in mapping problems that have an

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impact on the difficulty of understanding a lesson comprehensively [6]. Metacognition strategies refer to ways to increase awareness of the processes of thinking and learning that apply so that when this awareness is realized, metacognitive skills will emerge where a person can escort his mind by designing, monitoring and assessing what he is learning [7].

Someone with a good awareness of metacognition will lead to self-regulation by planning, to directing and evaluating. The level of metacognition awareness can be helped towards self-awareness if supported by the learning environment [8]. Among ways to practice metacognition awareness is to get used to using effective learning strategies and to explore awareness for learning [8]. The more someone knows about the process of thinking and learning, the greater the awareness of metacognitive. Furthermore, this will have an impact on the learning process and achievements of students [9]. The results of research by Nuryana & Sugiarto [10], Coutinho [11], and Ulfah et al. [8], show that there is a significant relationship between metacognition awareness and student learning outcomes. In addition to metacognition awareness, achievement levels are also influenced by intellectual abilities [12].

Based on the results of analytical theoretical and practical studies about the goodness of metacognition awareness in directing one's achievement, then efforts to see the profile of metacognition awareness are feasible to run. The research results can be used as a basis for other development research in the same field or are still in contact.

2 Method

This research uses descriptive method, which is an attempt to describe the subject/object of research based on facts obtained in the present as it is [13]. This method was chosen because it is aligned with research objectives that will uncover and analyze the level of metacognition awareness of students who take the Animal Behavior Course. This study took 32 students as subjects who were taking Animal Behavior courses. The research data was collected by giving a MAI (Metacognition Awareness Inventory) questionnaire and a concept understanding question sheet. MAI questionnaire refers to the results of the development of Schraw, G. & Dennison, R.S [13]. Interpretation of metacognition awareness levels uses the Green (2002) reference, with details as outlined in Table 1. The question sheets are used to measure cognitive learning outcomes and are validated by assessment expert lecturers. The collected data was tested for normality (Kolmogorov-Smirnov) with the help of SPSS.16. Furthermore, data on the measurement of metacognition awareness and learning outcomes were analyzed using SPSS.16 to determine the level of significance of the effect. More clearly, the flow of research is illustrated as Figure 1.

The MAI instrument developed by Schraw, G. & Dennison, R.S. (1994) generally measure two aspects of metacognition, namely knowledge about cognition and cognitive regulation. The knowledge aspect of cognition encompasses the level of student knowledge, especially declarative knowledge, procedural knowledge and conditional knowledge. While aspects of the regulation of cognition focus in measuring the level of planning, information management strategies (IMS), overall monitoring, tracking strategies, and evaluations.

Table 1. Estimates of Metacognition Awareness Levels

Score interval	Level	Term	Description
0 – 18	0	Not yet	Not yet lead to cognition.
19 – 36	1	Risk	Does not appear to have an awareness of thinking as a process.

37 – 54	2	Not very good	Not being able to separate what is thought from how he thinks.
55 – 72	3	Grow	Can be assisted towards self-awareness if moved or supported.
73 – 90	4	Good	Conscious of his own thinking and can distinguish the stages of self-elaboration input and the output of his own mind.
91 – 100	5	Very good	Able to use metacognition skills regularly to manage their own thinking and learning processes. Aware of the many possibilities of thinking, being able to use them smoothly and reflecting on the thought process.

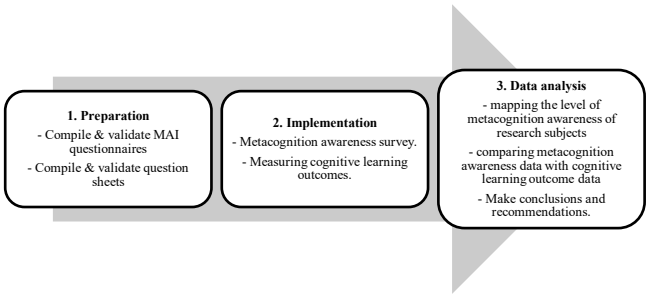

Fig. 1. Research Flow

3. Result and Discussion

3.1 Description of Student Metacognition Awareness

Identification of students' metacognition awareness carried out with the help of MAI questionnaire instruments produced data as in Table 2. Data in Table 2. shows that more than half of students who are taking the Animal Behavior Course are in a very good level of metacognition awareness (54%). According to Green (2002) a very good level of metacognition awareness indicates that someone has been able to use metacognition skills regularly to regulate their own thinking and learning processes. They are also aware of the many kinds of thinking possibilities, being able to use them smoothly and reflecting on their thought processes

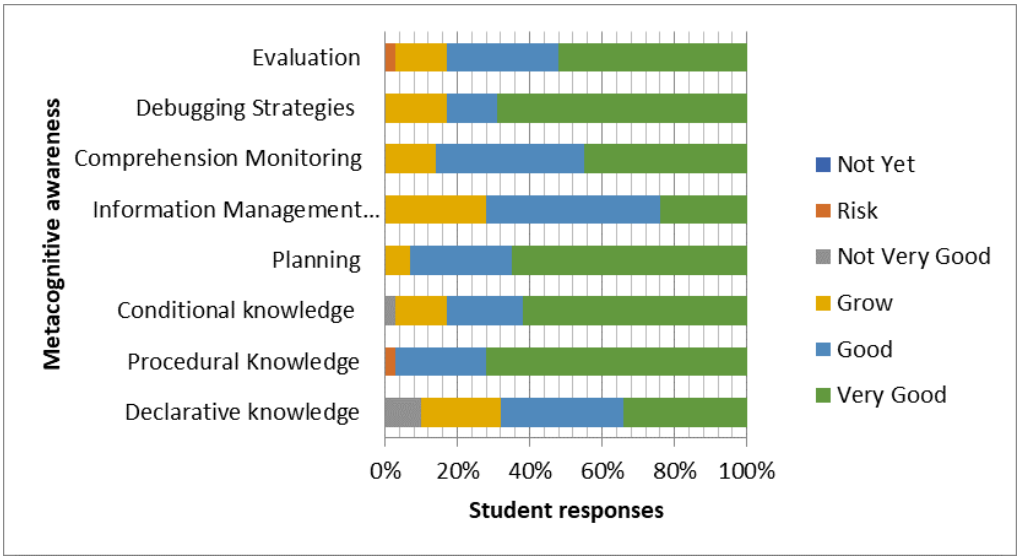

Fig. 2. Analysis of student's responses within each aspect of metacognitive awareness questionnaire

Nearly a quarter (29%), students are at a conscious level of their own thinking and can distinguish the stages of self-elaboration input and the output of their own thoughts. This level by Green (2002) is categorized in the level of "good" metacognition awareness. While the rest, awareness of metacognition of students is at risk (1%); not quite able (2%); and developing (14%). Some factors that are suspected to strongly influence the level of metacognition awareness of a student based on the results of research Ulfah et al (2014) are experience, ability to solve problems and the intensity of social interaction.

Metacognition awareness cannot naturally develop in students without being facilitated with appropriate learning strategies [15]. Students who have metacognition awareness levels are at risk, not yet able to, and are still developing can be improved by providing appropriate learning strategies. Conner (2007) states that most students are aware that learning strategies can help direct their metacognitive awareness to a better level. This is shown by the results of Suratno's research [16] which concluded that the combination of jigsaw learning strategies and reciprocal teaching had a significant effect in increasing one's metacognition awareness. One reason that the combined learning strategies are able to increase metacognition awareness is because there is a syntax that requires students to engage in intensive group work interaction and practice an active thought process [17].

The data in Table 2. also presents in detail the level of knowledge and regulation of student cognition. It can be seen that the diversity of students' knowledge level of cognition starts from risk (1%); not quite able (4%); developing (12%); good (27%); and very good (56%). Cognitive knowledge includes declarative, procedural and conditional knowledge. The most developed level of knowledge in college students is procedural knowledge (72%); conditional knowledge (62%); and declarative knowledge (34%).

Procedural knowledge is defined by Van de Walle (1990) as an understanding of the order of the rules, the steps used to solve problems. Based on the data in Table 2, the ability of students to understand the steps to solve a problem is very good. The high score is closely related to the habits of students in conducting practical activities. Following sequential steps when practicum, leads to the predicted results or proof. If you do the opposite, the results of the

practicum will be far from what is desired. Further analysis showed that the average student participating in a lecture on animal behavior was in the third year. It can be assumed that students often do practical activities so that this affects their procedural knowledge.

Furthermore, aspects of student cognitive regulation based on the data in Table 2 in sequence are risky (1%); not quite able (0%); developing (16%); good (32%); and very good (51%). Cognitive settings include some expertise in planning, information management strategies, comprehensive monitoring, tracking and evaluation strategies. All of these abilities have developed very well for students, only each has a different level. In order the level of development of each of these capabilities are: search strategy (69%); planning (65%); evaluation (52%); comprehensive monitoring (45%); and information management strategies (24%).

The ability in search strategies (debugging strategies) includes knowledge of solutions that must be found and done when finding misunderstanding. The form of the intended solution such as asking the expert when finding difficulties, changing learning strategies when it does not work, reassessing the understanding that is already owned, and re-reading the part that is not understood. Indirectly, this ability has been honed in students' learning experiences. The learning strategy applied by lecturers in lectures is suspected to have a big influence on the development of the ability of the search strategy. Some lecture methods applied by lecturers, such as: assignment to make papers either independently or in groups, classically or group-discussion presentations, make observational reports, will indirectly hone the student search strategy.

Whereas the lowest ability in the aspect of regulating cognition is information management strategies. This ability is a strategy chosen by someone in obtaining and interpreting information. Forms of strategy that can be used such as (1) slowing down reading when finding important information, (2) focusing attention, (3) interpreting new information, (4) making examples so that information is more meaningful, (5) making pictures or diagrams when learning, (6) using one's own language style in interpreting information, (7) organizing reading when learning, (8) making steps of learning, and (9) focusing on the overall meaning rather than a part. Some of the problems that can be explored through interviews include students being less able to associate new information with prior knowledge. This is allegedly due to the disruption of the function of the recall in memory and the lack of sensitivity to current environmental issues.

3.2 The Relationship of Metacognition Awareness with Cognitive Learning Outcomes

A review of this topic was carried out with the help of the SPSS 16.0 application to ensure the accuracy of the conclusions. Therefore, only using one independent variable, then in determining the strength of the influence of Metacognition Awareness (MA) on Cognitive Learning Outcomes (CLO) using a simple linear regression method. The use of this method has an initial assumption that the data must be normally distributed. To ascertain the type of data distribution used in this study the Kolmogorov-Smirnov method was used. The results of calculations using these methods are presented in Table 3.

Table 3. Results of calculations using the Kolmogorov-Smirnov method

		Unstandardized Residual
N		32
Normal Parameters[a]	Mean	.0000000
	Std. Deviation	4.05181642
Most Extreme Differences	Absolute	.113
	Positive	.113
	Negative	-.094
Kolmogorov-Smirnov Z		.638
Asymp. Sig. (2-tailed)		.810

The data in Table 3. shows that the significance value obtained at 0.810 is greater than 0.05, which means that the residual value is normally distributed. Based on these results, the data in this study have fulfilled the initial assumptions so that the process can proceed using the simple linear regression method. The calculation results are presented in Table 4.

Table 4. Calculation of simple Linear Regression

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	74.716	7.289		10.251	.000
	KM	.011	.082	.024	.130	.898

Table 4 shows that the significance value is 0.898> 0.05, it can be concluded that the MA variable has no effect on the CLO variable. So it was decided that the MA variable had no significant effect on the CLO variable. Judging from the level of correlation between MA and CLO students also found no relationship (r = 0.898).

Table 5. Relationship between MA and CLO

		MA	CLO
MA	Pearson Correlation	1	.024
	Sig. (2-tailed)		.898
	N	32	32
CLO	Pearson Correlation	.024	1
	Sig. (2-tailed)	.898	
	N	32	32

Based on the results of statistical calculations on the three tables above (Tables 3, 4 and 5) it is known that Metacognition Awareness (MA) has no significant effect (r = 0.898) on the Cognitive Learning Outcomes (CLO) of students in the Animal Behavior Course. The results of the study also support the Danial research report (2010) which concluded that MA had no

effect on mastering the basic chemistry concepts of students, but simultaneously with metacognition skills had a significant influence. Some studies also did not find a relationship or have a weak relationship between MA and CLO (Centinkaya, 2002; Corliss, 2005; Coutinho, 2007; Suratno, 2009 and Corebima, 2009). However, Ulfah (2014) in her study reported that MA had a strong relationship (38.2%) with CLO Organic Chemistry. More specifically, Ulfah found that CLO was not fully influenced by MA because there were students with high CLO scores but low MA and vice versa.

Cetinkaya & Erktin, (2002) reported that MA had a low relationship (r = 0.16) with scientific knowledge [18]. Whereas Corliss (2005) even found that MA scores were not related (r = 0.14) to the filling time (both at the beginning and end of learning) and decreased by 49.66% [19]. Coutinho (2007) also reported that MA had a weak relationship with the academic ability of students (r = 0.21) [11]. Furthermore, Suratno (2009) reported that there was no difference in the level of metacognition awareness among students with high academic abilities and students with low academic abilities even though the two groups of students had different responses in learning. Corebima (2009) concluded that the MAI questionnaire was not able to record properly, because of 40 classes (elementary, junior high, high school and PT) levels showed that 30-85% of participants experienced a decrease in scores from preetest to posttest [20],[21]. Bahri (2010) reported a decrease in metacognition awareness from pre-test to post-test using the MAI questionnaire by 25% of 44 students [22].

No significant relationship was found between MA and CLO because it was allegedly strong because the level of knowledge contained in the CLO test instrument was C1 and C2. While knowledge of metacognition tends to lead to setting high order thinking skills. So there is no / little harmony found in the variables X and Y. The statement is in line with the results of Danial's research (2010) that MA does not have a significant relationship with the mastery of students' basic chemical concepts [23]. Mastery of concepts tends to be normative and theoretical, meaning that students are asked to remember and understand theories, laws and principles in chemistry. Students have not been asked to apply, analyze, assess and create. But Danial (2010) found that metacognition skills had a significant effect on student CLO [24]. Metacognition skills are closely related to how a person (1) plans, (2) monitors and (3) evaluates. These three capabilities will develop optimally and synergy if based on a good understanding of the concepts, theories and principles in chemistry. Based on this, it can be seen that the component of metacognition skills is complex abilities that lead to higher order thinking skills. So the common thread is that if a student's metacognitive skills are good, the student's learning outcomes are also good.

4. Conclusion

The level of metacognition awareness of students in animal behavior courses is at various levels. Starting from very good (54%), good (29%), growing (14%), not very able (2%) and risky (1%). Meanwhile, no significant relationship was found between metacognition awareness and student learning outcomes. This condition is allegedly strong because the test instruments used to measure learning outcomes are at the level of knowing and understanding. While metacognition is very closely related to higher order thinking skills. It is necessary to develop in the test instrument learning outcomes towards more authentic and demanding higher-order thinking. An appropriate learning strategy is needed in developing students' metacognition awareness. However, metacognition awareness is very closely related to the regulation of cognition.

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The Effectiveness of Civic Education Learning Using the Multimedia Role Playing Model in Developing Student Civic Skills

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Abstract. This research aims to determine the effect of Civics learning using *role-playing models* multimedia on students' citizenship skills. This research uses a quasi-experimental method with a quantitative approach. As a whole, 858 students of SMK Telkom Bandung became the research population. Then for the sample, 36 students of class X Multimedia-2 as the experimental class and 36 students of class X Multimedia-3 as the control class. The results of this research indicate that civic education learning that uses a model is *role-playing* effective in developing students' civic skills. The development of civic skills in this study includes the ability to identify problems, describe problems, and take attitudes towards problems.

Keywords: Citizenship Education, Citizenship Skills, Role-Playing Models, Multimedia

1. Introduction

Citizenship Education is a subject that has the mandate to shape citizen competence. In these citizen competences, there are knowledge of citizenship, citizenship skills, and citizenship character, these terms in learning are commonly referred to as student personalities, attitudes and skills [1],[2], the process of forming citizenship competencies specifically regarding student citizenship skills, such as personality and attitudes, cannot be separated from the role of the teacher in designing the learning process. For this reason, a learning model and media are needed that can stimulate student enthusiasm because if the teacher's delivery is less attractive it will have an impact on students' enthusiasm, intellectual skills, and social participation [3]-[5].

Intellectual and social participation are part of civic skills that must be fulfilled in the goal of Citizenship Education [6]-[8]. Based on pre-research conducted by researchers on the implementation of Civics learning at SMK Telkom Bandung, there are several things to note in learning, such as the use of conventional learning models and the inadequate use of multimedia in learning which results in low enthusiasm and student citizenship skills in learning. For this reason, the researcher tries to study using the principles of social learning theory which is the basis for cooperative learning and emphasizes the elements of cooperation social interactions [9]. The implementation of the learning process with elements of cooperation and social interaction is carried out through the application of integrating role-playing models with multimedia learning so that student enthusiasm increases [10]. It is hoped that in addition to an increased enthusiasm, it will also improve students' citizenship skills.

The steps or stages of implementing model learning *role-playing* this adopt from the steps of implementing the model *role-playing* with multimedia by developing into the following: The first stage the teacher orientates about the model to be applied to students,

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namely displaying *PowerPoint* learning materials, related learning videos with learning material and identify its relation to learning material. In the stage second teacher determines the group for the role, namely analyzing the role, selecting the players who will perform the role. In the third stage, the teacher prepares the researcher/student observer, namely deciding what to look for, assigning observation tasks to students. The fourth stage of the implementation of the role is to start *playing roles*, strengthening *role-playing*, ending *role-playing*. The fifth stage discusses and evaluates the roles/reviews the roles and then develops further roles. The sixth stage re-plays, namely playing a changed role, providing input or alternative behavior in the next step. The seventh stage is to share and generalize experiences, namely connecting situations with real-life and other problems, explaining general principles in behavior. The eighth or final stage is to prepare and create learning outcomes, namely rewriting the meaningful roles into the form of group learning videos [11],[12].

Based on the class phenomenon in the pre-research that has been described, the researcher conducted a learning experiment between conventional lecture learning and role-playing learning that maximized the use of multimedia learning intending to know the impact of learning multimedia role-playing on students' citizenship skills.

2. Research Method

Methods used is a quasi-experimental method with a quantitative approach. The research design was *pretest and posttest Control Grou*p. The population in this study were students at SMK Telkom Bandung which consisted of 25 class study groups with a total of 858 students. Then in the sample section, it is determined based on the characteristics of the similarity of students in the equivalent class from the class level, the activities and creativity of students in learning [13], namely students in class X Multimedia-2 (36 students) as an experimental class and class X Multimedia-3 (36 students) as a class. control. This research uses observation, tests, and questionnaires as research instruments, before using the instrument has been tested and declared valid with a very good level of reliability. Data analysis using statistical *inferential parametric tests* with the help *of software* statistical SPSS 20. Then for the variables in this study, Civic education learning used model *role-playing* multimedia as the independent variable and student citizenship skills as the dependent variable. The indicators of civic skills include intellectual skills and participation skills [14].

3. Results and discussion

Based on the questionnaire that has been distributed, it shows the following graphical data:

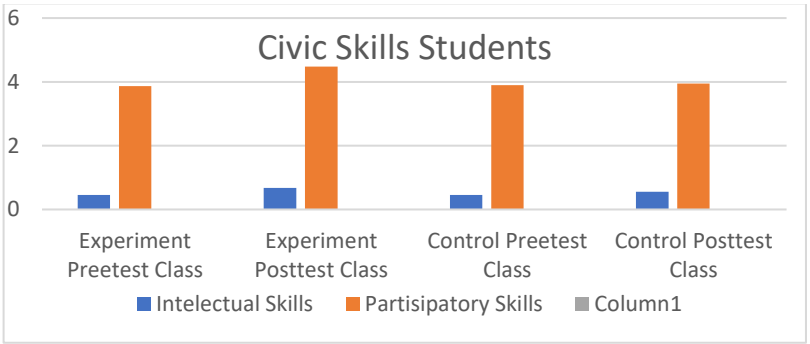

Fig 1. Graph of the average value of the pretest-posttest questionnaire results in the experimental class and control class

Based on the graphic figure 1 above it is stated in the experimental class the average value of the pretest indicator of intellectual skills of 0.48 and the *post-test* of 0.68, the increase is 0.20. Then for the average value of the participation skill indicator was 3.87 and for the *-test the post-test* was 4.44 the increase was 0.57. Furthermore, in the control class, the mean test for intellectual skills ability is 0.46 and the *post-test is* 0.56, which has increased by 0.10. For the mean of participation skills *pre-test* the control class 3.90 and the *post-test is* 3.95, the increase is 0.05.

Based on the data above, it can be understood that the model *role-playing* multimedia in Civics learning has a significant influence on student citizenship skills, this is indicated by the average value of an increase in intellectual skills of 0.20 or 20%, intellectual skills here include the ability to identify problems. , the ability to describe problems, and take a stand. Then on the participation skills of 0.57 or 57% which includes general participation skills in discussion, negotiation, socialization, and skills in group problem-solving [15].

The effect can be analyzed of rationality model development, among other things: First, the application of multimedia role-playing models emphasized to explore social values through a private exploration and feelings of students in the environment of cooperation [16].[17]. The principle of cooperation is part of the concept of cooperation in solving problems [18]. Which must be built continuously through character education. The principle of cooperation ideally also adjusts to independence so that cooperation can run well and in balance. Character education is the inheritance of the national values, ideals, and goals that are stated in the state constitution and the message of the founders of the country. In this millennial era, the value of cooperation and independence are values that include being the foundation in building the personality of citizens, this is of course important to continue to be emphasized and implemented in every lesson because it will build positive relationships between friends and train the social cognitive aspects of students [19].

The following is one form of cooperation in learning:

Fig 2. The process of collaboration in making multimedia role-playing video projects

The second rationalization analysis, learning models *role-playing* multimedia can spur students to think critically, identify behavioral views, and implement what is understood. In other words, the learning will shape and build the meaning of the phenomenon, or the student experience with the physical environment [20]. Through PPKn learning that applies model *a roleplaying* multimedia-assisted, students not only gain knowledge or cognition, but students will also gain the ability to build their existing knowledge into new knowledge based on their

new learning experiences. So that PPKn learning does not only develop *civic knowledge*, in the form of knowledge and understanding of national social culture, government structures and processes, and political life but also develop *civic skills*. Civic Education learning seeks to emphasize students to be able to process moral knowledge in the form of behavior and skills [21].

Fig 3. Videos of the results of playing roles in Civics learning

The third rationalization analysis, one of the missions of Civics learning multimedia role-playing is the exploration of subject matter and the learning environment to develop problem-solving skills related to shared responsibilities related to the role and making of learning projects [22]. In implementing project-based learning, it is a PPKn learning model in which there are several methods such as creating an independent classroom and environment atmosphere, participating in associations, managing conflicts, community service, role *playing* or simulations, character studies, and peaceful demonstrations in practice [23],[24]. In addition, this research also shows the process of mutual respect between students and the creation of learning outcomes projects that are part of the development of the nation's character, and forming citizens with a high-minded culture, with character to prepare a quality generation [25],[26].

To strengthen the assumption of the significance of the application of the multimedia role-playing model in learning, the researcher shows a gain score analysis. analysis *Gain score* is a way of analyzing data from experimental design to find the value of the difference of values between the pretest-posttest and experimental class and control class. To more clearly understand the comparison, it *gains score* can be seen from the table below:

Table 1: *Gain Score Citizenship Skills*

	Kelas	N	Mean	Std. Deviation	Std. Error Mean
gain_score	Eksperimen	36	9,7778	6,09033	1,01505
	Kontrol	36	2,3333	1,24212	,20702

Based on table 1 the difference in the average value of the post-test and pretest results in the experimental class is 9.78 while in the control class it is 2.33. From this value, it shows that the increase in student citizenship skills in the experimental class is much higher than the control class, which means that the use of the model *role-playing has a* multimedia significant effect on the improvement of students' citizenship skills. So the application of model *the role-playing*

multimedia in Civics learning emphasizes students to also understand the characters of other students through joint decision making when discussing, when carrying out the role process, and when making joint learning outcomes. This is so that students can understand and determine how good character is and how to have a sense of mutual understanding through a learning process [27].

4. Conclusion

Based on the results of the analysis that has been carried out on the research methodology, it is found that the T-count value is greater than the T-table, then the *p-value is* 0.00 less than 0.05. Then H_0: $\mu_1 = \mu_{2\ is}$ rejected. So that the average gain value between the experimental class and the control class is different and the first hypothesis can be accepted that there is a significant difference in citizenship skills between students who use the model *role-playing* multimedia and students who are treated with conventional lecture learning. So it can be concluded that the application of the model is *role-playing* quite significant and effective in improving students' citizenship skills.

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Learning History by using E-Learning Module Based on Sofware Flipbook Maker

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Abstract. This scientific work is titled Learning History Using the E-module Sofware-based FlipBook Maker. As for the purpose of writing this scientific work to know the learning of history by using a Sofware based E-module FlipBook Maker. This scientific work uses the library study method of several research results that have been done by researchers with a fairly satisfactory success rate. Historical learning is a very complex process because it is abstraction. Therefore, it is necessary to use the system of information technology to make it easier for learners to understand the material history, then in the learning of history need to use a Sofware based E-module FlipBook Maker. Learning with a Sofware-based E-module FlipBook Maker gives learners the possibility to learn according to their abilities at the pace of their learning. As for implementation in the learning process with the use of this Sofware FlipBook Maker E-module, educators act as teachers who facilitate the learning process. So that students in the study room can play an active role by studying the materials and performing the tasks or exercises that have been designed in the module to facilitate students ' understanding of the learning materials so that they can Improve learning outcomes.

Keywords: Learning History, Elearning Module, Sofware-based FlipBook Maker.

1 Introduction

The rapid development of information technology today, needs to be addressed by the education world. Technological advances must be brought into the classroom for better learning. Current students are also very familiar with the technology so that lecturers should also follow the developments. Various software produced by computer technology can be utilized in the educational world, especially in learning. Some research that has been conducted by researchers by utilizing computer technology has positive impact both on interest, motivation, thinking skills and learning outcomes [1].

Significant results from some of the above studies occur because learning by utilizing technology is more interesting, requires creativity and up-to-date or in accordance with the development of current student environment.Therefore, it needs more innovation to create learning that is more interesting and interested by students.

In South Sumatra, there are many historical relics that have not been used as learning resources. Especially the prehistoric relics scattered in the highlands of South Sumatra are often referred to by Pasemah megalithic cultural archaeologists. The discoveries of prehistoric times include megalithic sites, even recognized as the most comprehensive megalithic site of prehistoric times in Indonesia even around the world. Seeing the historical relics is a pity that has not been packaged or utilized optimally as a source of learning in the learning of history especially local history learning. Thus on the other hand is actually a lot of resources learning

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around the life of learners that can be utilized for learning. This phrase is reinforced by Parceval and Ellington, that from a wide number of sources learn only textbooks are widely utilized. This condition is compounded by the use of the book as a learning resource also still depends on the teacher's presence, if the teacher is not present then other learning resources including the evidence can not be utilized by learners.Therefore the presence of the teacher is absolutely necessary [2].

The courses of ancient Indonesian history are compulsory courses that must be attended by students of the history Education program. In the course of ancient Indonesian history, students learn everything about ancient humans, cultures, megalithic buildings and civilization by involving skills and reasoning. Historical learning is developed based on experiments (inductive) or based on theory (deductive) so that students are trained to think scientifically.Learning history is a very complex process. Lecturers should be able to explain the abstract history material into real so that students understand the historical material easily [3].

In studying history, certain specific learning techniques are indispensable with regard to the characteristics of the history as procedures and processes. Some of the specific characteristics of historical sciences are among others: a) The history of more abstract, B) Learn the simplification of the actual historical sciences, c) The study material history starts from the easy to the difficult, and D) lesson materials History not only solves the problems. The historical learning techniques that are suitable for such abstract things are by imagining or creating depictions of the matter in real or imitation/modeling.The imagery can help students to remember the material discussed in the study of history, especially of the pre-existing or historical material [4].

Based on preliminary study to the historical education students of the Education Department of IPS FKIP Unsri, the utilization of information technology today is often used by students. They are more pleased and often use electronic appliances such as computers, laptops, mobile phones, and others in everyday life.Therefore, the habits and hobbies of such students need to be utilized in the learning history process. Therefore the presence of Internet in education is already a necessity to develop a more conducive and interactive teaching learning situation in historical learning [5],[6].

Therefore, the development and use of E-module software-based FlipBook maker is very necessary to be implemented for the study of history in the history education Program in order to increase motivation, interest, activation, and independence of students To learn that they have a satisfactory learning outcome. The E-module software-based FlipBook maker displays text, images, animations, and videos through a computer's electronic device.Interactive electronic teaching materials can reduce the use of paper in the process of learning.In addition, the E-module software-based FlipBook maker is expected to be used as an efficient and effective alternative learning resource.

Based on the explanation above, the problem can be formulated as follows.How is the development of E-module software-based FlipBook maker for learning history with megalithic relics in Pasemah on the subject of ancient Indonesian history?

2 Review of Library

2.1 Learning History

The history derives from the word syajaratun meaning tree. History according to the Great Dictionary of Bahasa Indonesia is: 1) the Origins of genealogy; 2) events and events that really happened in the past.Historical learning requires a learning resource to increase students ' interest in learning history.Therefore, teachers must seek effective teaching materials that are intended for students because students are active in studying science.In addition, learning is a mental/psychic change that takes place with full awareness in learners through positive active interactions with the environment and that results in a change in understanding, skill, and attitude.The change could be a new outcome or refinement to the results previously obtained and relatively constant or consequential [7].

To gain the ability of knowledge of the historical, the purpose of the learning of its own history in order to realize the figure of individuals who have a sense of love towards the homeland, so that with such a sense of love can be expected to bring This homeland is in the better direction.Historical learning can help learners to understand the behavior of people in the past, present, and future.It is clear that historical lessons become a vehicle for learners to learn about the process of change and development of the community and to embed knowledge and good values in learners [3].

With the reason it is expected by the existence of teaching materials in the form of E-module software-based FlipBook maker of learning that specifically discusses the material local history of the Megalithic Pasemah website, especially on the site of Tegurwangi and surrounding areas, can Add reference to the learning of ancient Indonesian history.

2.2Module characteristics

The Bahasa Indonesia dictionary states that modules are a learning activity that allows learners to learn with the help of a minimum of educators, which includes planning and objectives to be achieved. Clearly, providing learning materials, tools needed in learning, tools for assessing and measuring learners ' success in completing learning.In line with that, Prastowo argues that a module is a structured teaching material that uses easy-to-understand language according to the characteristics of learners, prepared to make students study independently With minimal guidance from educators [8].

Generally each type of teaching material has its own characteristics. The module as a teaching material also has a characterisk that distinguishes it from other teaching materials.First, the design of modules is aimed at self-learning systems. Secondly, the module is structured as a thorough and organized learning program.Third, in a module there is a load of purpose, content or activity, and an assessment or evaluation tool.Fourth, the presentation of the module teaching materials is communicative or in two directions.Fifth, the existence of modules designed can enable reducing the role of educators in delivering material.Sixth, the discussion in the module is arranged in a focused and measurable order.Seventh, the module is designed to increase the learning activity of the learner [8].

According to the Ministry of National Education that the characteristics of a module such as self intructional, self contained, stand alone, adaptive, and user friendly [9].

a. Self intructional, in this case the module is designed to provide allows for the learning to teach itself without depending on the other party, therefore there are some things to be considered in writing a module, Include: a. Facilitate learning to learn completely through the preparation of specific materials or packaged in small units. b.

Support Participant's understanding through the clarity of the material displayed by providing examples and illustrations. c. Provide possibilities for the learnings to respond and measure the level of mastery on learning materials by providing training, duties and the like. d. The learning materials presented are tailored to the context of the task and the learning environment. e. Communicative language and simple. f.Contains a summary of the learning materials. g. Contains assessment instruments that enable participants to measure their own success in learning. h. Provide the possibility for the adherence to know the level of his or her content in the material through the provision of feedback. i. Available information on referrals that support learning materials in the module.

b. Self contained, this means that a module must contain the scope of the whole material needed in the learning according to the competencies that want to be achieved in the learning so as to enable the learning to learn the modules The whole.Distribution of material from one competency unit can be done if it is needed by observing the principles of prudence and competence.
c. Stand Alone means that the use of modules can be done without depending on the existence of other learning media, including in the study of materials and work on the tasks contained in the module
d. Adaptive; Modules must be able to adapt to the development of science and technology, including in terms of use should be flexible including can be used on various types of hardware
e. User Friendly; The exixtence of the instructions in the module should be designed to facilitate the learning of access and response to the needs of the learning, in addition, the information presented in the module should also use language and terms that are easy to understand by the adherent so that it can be said to be friendly with the user.

Based on the above opinion, it s understandable that the characteristics of a module, among others, can be used for self-learning, containing all the full and complete learning components including evaluation and feedback, so that it is possible that learning is complete by learners, its use is not dependent on other media, can adapt to development of science and technology and provide convenience for its users both in Understand the contents of the module itself.

2.3 Module Components

Broadly speaking modules have components like teaching materials in general. Sungkono argues that a module has several components, such as the review of subjects, introduction, learning activities, exercises and grids answer, summary, formative test and the answer key [10].

Depdiknas explains that a module must contain important components consisting of the opening part, the core part and the final part. The opening section includes the title, Table of contents, information map, List of competency objectives, preliminary tests. The core section includes material review, relationships with other materials, material descriptions, assignment, summaries. The final section includes the glossary, final tests and indexes [11].

Based on some of the above opinion it can be understood that a module consists of several components is the beginning or the introduction, the core part or the learning activity and the end or the cover.

2.4 Learning by Module

The module is a complete and structured teaching material that refers to the curriculum, using language that is easy to understand, in accordance with the characteristics of the students.According to the Prawiradilaga module is a dynamic teaching material because it can be used in both self-learning and learning in classrooms that involve the role of educators.Learning by module is a learning that gives learners the possibility to learn according to their own pace and learning ability.So it can be said that the learning by using a module in principle aims to increase the effectiveness and efficiency of learning in terms of use of time, funds, facilities, and energy precisely [12].

In the learning process, it can be said that modules are teaching materials used and utilized as learning aids to help learners master the learning materials in accordance with the established indicators.In this case, the existence of the module is utilized as a facility that can be used by learners to learn the material independently according to the capabilities and speed of its own learning, while educators who act as facilitators can provide an overview of the material to be learned to the learners [13].

The use of modules in learning independently or individually is very possible because as a module teaching material contains objectives, instruction sheets, reading materials, answer keys, and evaluation tools. Whereas in the conventional learning process module can be used as an alternative form of presentation of material in learning [14].

Based on the above opinion it is understandable that modules are teaching materials that can be used in conventional learners that involve the role of educators as both teachers and learning independently to help overcome time constraints Learning opportunities in the lecture room.Learning with modules gives students the possibility to learn according to their learning abilities and pace.The implementation of learning with modules in this research is the use of digital modules in the learning process where educators act as teachers who facilitate the learning process so that students in the lecture room can Play an active role by studying the materials and performing assignments or exercises that have been designed in the module to facilitate participants ' understanding of the learning materials so as to improve learners ' learning outcomes.

2.5 Digital Module (E-Module)

The development of information media today began to experience the transition from print media to digital media. This has an impact on the educational world, especially in term of the presentation of teaching materials. The presentation of teaching materials including modules is not only limited to print media limit, but already utilize electronic media or digital media. The digital module is a form of presentation in the electronic format of the material that is composed in whole and structured into the smallest learning unit to achieve specific learning objectives accompanied by a navigation link that can be Create student interactivity on the program and can be equipped with audio, image, video, and animation content to enrich learning experience [15].

In line with the above opinion, digital modules can be interpreted as teaching material that are systematically designed based on a specific curriculum and packaged in specitif time units dispayed using electronic devices such as computers or Android [16]. Digital modules also have interactive properties due to easy navigation, image display, audio, video, and animation that provide variety, as well as feedback through specific formative tests or quizzes [17].

A digital module is a learning tool designed to achieve certain competencies in which it contains material, methods, restrictions and how to conduct the process of conducting the learning outcomes structured and presented with Utilizing communication technology and information in the form of interned and electronic devices [18]. In addition, digital modules are teaching material based on information communication technology that has various advantages, among others; Operation of the generated modules can be done easily by the user, modules can be equipped with background music, video, slide show, can be learned online and offline, learning evaluation can be made using the application quiz qreator, can be opened via a computer or a smarphone, this module can be used as a learning resource for students who want to learn without time limitation [19].

Based on the above opinion can be concluded that the digital module is a form of presentation of a material module in electronic format, in which there is a navigation link that can facilitate interactivity between participants students with the program and can be equipped with audio, image, video and animation content, can be learned online or offline so that it can enrich the learning experience.

2.6 Flipbook

Flipbook is one kind of animated book display in electronic or digital format back page. The use of this Flipbook-shaped digital book can make users feel like they're opening a book physically. Moving between pages can be done by touching and unfolding a page as our finger flips a page of the book, and the page will be folded as the paper is being bent. In addition to the way dragging, page transfer can also be done by utilizing the navigation buttons available [20].

E-module in the form of Flipbook maker developed in this study using the software Flipbook maker.FlipBook Maker is one of the software that can change the look of books or other teaching materials into a digital book behind the form of a page (Flipbook) [21].This software is a powerful software designed to convert packaging files from PDF, PowerPoint, Word, and Excel formats into a book, magazine or catalogue, etc. resulting in a more attractive look and be published digitally.Various features such as zooming to zoom, word search, bookmarks, and thumbnails are available in this app [22].

This software is chosen because it has several advantages, among others, capable of inserting various media in a book or module that will be developed in a more varied media display, not only text, but also images, video, and audio so that the process Learning will be more interesting. The device also has designs and features such as background, control buttons, navigation bar sound. The animation effect at the time of page switching will make users feel like they're physically opening the book. The Output or the end result of this software can be saved to the format of HTML, EXE, ZIP, Screen saver and app. The HTML format allows uploading to the website online. EXE format for CD delivery, ZIP format for fast email and APP format for Smartphone use [20].

3 Research Methods

This type of research is developmet research using Alessi and Trollip development model consisting of 3 (three) stages namely planning stage, design stage, and development stage. This model was chosen because it focused on the development of non-printing product, has a simple and complete working way so that it is easy to follow and has a development

model is also there is a formative evaluation and summative evaluation at the its development, which is Alpha test and Beta test [23].

This study was conducted on student of History Education study Program of FKIP Unsri. At the planning stage the researcher defines the scope of constraints based on need analysis, curriculum analysis, and sarana-prasarana analysis. Analysis of needs as a first step in developing E-modules for students is conducted through preliminary study to find out the obstacles faced in training learning and to know the needa of training participants in the process learning. Curriculum analysis conducted by researchers related to the scope of material that will be developed in the form of module teaching materials, and analysis of sarana-prasarana conducted related facilities and infrastructure available and can support the development of modules that researchers will do.

The next step of the researcher at the planning stage is to identify the student characteristics through documentation studies. The next step researchers are setting up constraints and obstacles in the development of the Flippbook-shaped digital module. The next step of the researcher is to discuss the initial idea, this needs to be done in determining the initial concept of the developmet of digital modules

At the design stage of the researcher develops ideas related to the concept of learning and material, followed by determining the software to be used, preparing the initial prototype ini the form of a draft module and creating a product design in the form of flowcharts and storyboard.

At the stage of the development of researchers prepare the text of megalithic relics in Pasemah, preparing images, audio, and video, preparing supporting materials, producing prototypes, conducting Alpha test (expert validation) to know the opinions and Input from the experts on the developed media.At this stage, researchers validate the product to some experts, i.e. material/language experts, design experts, and media experts to conduct assessment of the material/language aspects, design aspects and media aspects of the digital module developed later By conducting product revisions.

The researcher subsequently conducted a beta test to find the practically of the product, and perform the necessary revisions to obtain the finl prototype. At the final stage, researchers conduct field tests to determine the effectiveness of the digital modules developed. At this stage the revised product based on the beta test results tested in the lecture room. This trial is done by providing pretests and posttest. Furthermore, the data collection techniques in this research include interview techniques, poll, observation and studi results tests. Data analysis in this study uses qualitative and quantitative descriptive data analysis techniques.

4 Results and Discussion

4.1 Results

At the planning phase of the researcher has determined the scope of boundaries in this research, namely the development of E-modules in the form of FlipBook maker of megalithic relics in Pasemah.The scope of this limitation is determined by researchers based on the results of analysis of needs, curriculum and supporting Sarana-prasarana.Researchers have also identified student characteristics, particularly those of research subjects.Based on the results of identification known that students who are the subject of research in the category require the development of competence, understand enough internet, have a smartphone

facility and able to operate it well, but not yet is optimally utilized in ancient Indonesian history learning.

At the design stage researchers have developed good ideas related to material content, appearance, images, video, audio, exercises and evaluation.Development of ideas conducted by researchers at this stage is based on the outline of the contents of the module.Next the researcher determines the software that will be used in the development of digital modules in the form of FlipBook maker, the main software used by researchers is flipbuilder, and supporting software in the form of Adobe Photoshop, Adobe priemere Pro CS 6, Videoscribe, and application iSpring Suite 8. Further researchers mumcreate product designs in the form of flowcharts and storyboards.

At the stage of development researchers prepare text, images, audio and video related to material and supporting material that will be loaded in the digital module followed by producing a Prototype E-module form Flipbook maker . After going through the planning phase, design, until the prototype oe E-module in the form of Flipbookmaker on megalithic relics in Pasemah, further alpha test, beta test, dan field test.

Alpha test is done to obtain the validation from experts in flipbookmaker form of E-module that is developed by researchers both from material aspect, design and media aspect.At this stage researchers ask for advice, feedback, and commentary on experts consisting of material experts, learning design experts, media experts against E-modules in the form of flipbookmaker developed.Comments and suggestions are further made as material improvements to revise E-modules in the form of FlipBook maker until stated to be valid or eligible for testing.

Referring to Alessi and Trollip's development research model to know the practicality of the E-module in the form of Flipbook maker that researchers do is beta test. The beta test is done to 3 (three) student from high, moderate and low ability categories according to the opinions of Alessi and Trollip. In the early stages, researchers explain to students the purpose and objectives and procedures to be implemented in beta test activities.Furthermore, researchers observe the use of digital modules by students, based on observations conducted by researchers, students are known to be fluent enough in using E-modules developed, the constraints experienced by students occur at the time Perform the installation process of E-module because at the time of beta test application E-module downloaded through Google Drive and require some action on the settings of the smartphone that the student used so that the installation process takes time A bit longer.

Beta test results are comments and suggestions and assessment related to the use of digital modules. Comments given by students on the average beta test say that E-Module form Flipbook maker that researchers developed already from the clarity of material. Images, video or sound, examples of problems, exercises and evaluation, easy to understand, can used repeatedly and practically because it is easy to use anytime and anywhere so that it can attract and motivate participants in learning the Megalithic relics in Pasemah. The advice obtained at the time of beta testing is the need for improvement to make the E-module easy to download, it has been followed by the researchers through revision by providing E-modules on the service Paly store applications so that the download and R-module installation becomes easier.

Practicality assessment results conducted by researchers through poll in beta test activity in student A showed a yield with a percentage of 89.09%, student B obtained the result with a percentage of 96,09%, and student C obtained percentage value of 94,55%. In accordance with the practicallyof Riduwan modification (2010) that the percentage value of 81-100 is in a very practical category then based on the acquisition of poll results from respondents in

practicality test of E-modules that researchers developed including in a very practical category [24].

The field trials of this study were conducted by giving a written test of pretest-postes.The implementation of test products begins with pretests to students.From pretests results obtained an average value of 42.67 with a category very less.The postest implementation was done at the end of the learning process to see the student learning results after using the E-module in the form of FlipBook maker developed by researchers.From the postest results obtained an average value of 85.83 with a good category.Based on the acquisition of Pretests and Postest values indicates the increase in the value (gain) of 43.17 and N-gain value of 0.76 which belongs to the high category.This corresponds to the N-gain value classification table according to Hake (1998) that the value obtained is 0.76 including the high category [25].

4.2 Discussion

This research has successfully developed E-module in the form of Flipbook maker on megalithic relics in Pasemah in the course of ancient Indonesian history. Based on the results of validation conducted on Alpha test with experts in terms of material, design and media, it can be concluded that E-module form Flipbook maker on megalithic relic material in Pasemah by researchers are valid and worthy in the next phase of research.

Beta test results against E-modules in the form of FlipBook maker that researchers developed showed that the E-modules that researchers developed are included in a very practical category so that it can be concluded that the E-modules are developed easy to use by Students in learning. This is in accordance with the opinions of Akker et al. practicality means the resulting product is easy to use by users in this case it is a student and educator [26].

Based on the results of the field trials conducted by researchers, where the average results of pre-test 42,67 and post-test 85.83 with average increase in the value (Gain) 0f 43.17 and the average N-Gain value of 0.76 which belongs to the high category as well as the tes results of the deed with an average value of 90.22 that belongs to the high category is very good, it shows that E-module form Flipbook maker on megalithic relics in Pasemah developed researchers have an effectiveness to student learning outcomes [25]. This is in line with the previous research conducted by Mulyaningsih & Saraswati (2017) under the title of implementing digital Learning Media book with FlipBook maker utilizing the SPSS 16 program shows that there is a digital use influence Book on the understanding of the concept and student learning outcomes from an average of 70 for the control class (normalized Gain 0.4) to 84 for the experimental class (normalized Gain 0.7), so that it can be concluded that the use of digital media book with FlipBook Maker is effectively used in learning [22]. Research conducted by Sugianto et al under the title "Virtual module: Multimediaflipbook basic Digital Engineering" also found that digital modules berbentukflipbookefeective used in learning, can increase motivation, interest and liveliness Learning and can help make it easier for learners to understand learning materials [27].

5 Conclusion and Advice

5.2 Conclusion

Based on the results that have been done about the development of E-modules in the form of Flipbook maker on megalithic relics in Pasemah, it can be concluded as follows:

1. E-module form Flipbook maker on megalithic relics in Pasemah developed researchers have proven validity after the alpha test. This E-module has been tested through alpha testing with material experts, learning design experts, and media expert and is declared worthy or valid to be tested.
2. E-Module form FlipBook maker on megalithic relics in Pasemah has been tested for practicality after beta test, tested through 3 (three) low, moderate and high-skilled students with a percentage of 89.0 , 96.0, and 94.55 or are in a very practical category;
3. E-module form Flipbook maker on megalithic relics in Pasemah has the effectiveness of learning outcomes of training participants. It can be seen from the results of pretests and posttest at the field test. The average result of the acquisition of Prestests value is 42.67 with a very less category and the average posttest is 85.83 with a good category, the average increase in the gain value of 43.17 and the N-gain value of 0.76 with high category.

5.2 Advice

Based on the results of research that has been done about the development of E-modules in the form of Flipbook maker on megalithics relics in Pasemah, researchers can advise the following:

1. For students are expected to utilize the E-module L developed as a teaching material in the study of megalithic relics in Pasemah to improve competence and improve the independence of learning
2. For teachers are advised to use this developed E-module as a reference in developing teaching materials that will be used in learning activities in higher education.
3. For other researchers, it is expected that it can be used as a reference in relevant research or can improve the teaching materials that have been developed by making all materialof ancient Indonesian history

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Encyclopedia As A Learning Resources For Citizenship Education Courses

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Abstract. Learning sources are one of the supporting factors for the achievement of learning objectives, but sometimes existing learning resources do not match the characteristics of millennial students who don't like reading. So that we need learning resources that are in accordance with the millennial character but still in line with the curriculum that has been compiled. The method used is descriptive quantitative. Data were collected by distributing questionnaires to students who had attended Civics lectures. The results of the questionnaire data showed that 95% of the learning resources used by students so far were textbooks and the internet. There are 6.2% of respondents stated that their learning resources so far have not helped to understand the material being taught. and doesn't make the learning process any more interesting. From the questionnaire data, it can also be seen that all respondents like learning resources equipped with pictures and short explanations. Based on this, alternative learning sources such as encyclopedias in Civics lectures are needed in order to better help students understand the material being taught as well as make learning more interesting because it contains many pictures and shorter explanations.

Keywords: Encyclopedia, Learning Resources, Citizenship Education.

1 Introduction

The Citizenship Education course is one of the compulsory courses at universities in Indonesia as stipulated in Undang-undang No 12 Tahun 2012 that the higher education curriculum must contain subjects on religion, Pancasila, and Citizenship Education. and Indonesian for undergraduate and diploma programs. Without prejudice to other subjects, the government feels that the four courses have a significant role in shaping the character of young citizens as expected so that they are required in the curriculum of higher education. According to Azra [1] Civics or civic education is education that is broader in scope than democracy education and human rights education, because PKN also studies other matters such as the involvement of citizens in civil society and also the legal system, with In other words, Civics also include learning about values and morals with Pancasila as its basic foundation.

But sometimes the Civics learning process is quite boring by students, this is because the material in Civics lectures is dense and the presentation of learning resources is less attractive, even though learning resources are one of the supporting factors for achieving learning objectives. The disinterest and boredom felt by students when participating in Civics learning make the purpose of the course, namely to form the character of good citizens, will not run optimally. Therefore, civics learning resources are needed in accordance with the characteristics of students in order to be able to make Civics courses more interesting, because sometimes the

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existing learning resources are only textbooks containing long writings and not accompanied by pictures. Which learning resources are not in accordance with the characteristics of millennial students who fill learning in Higher Education.

One alternative learning resource that can be used in Civics lectures is an encyclopedia, with short explanations and attractive visualizations, it will be able to make learning material easier to understand. Encyclopedia is a book (or a series of papers bound together) which contains an explanation or discussion of a particular branch of science or field of science [2], An encyclopedia is a material that contains information along with interesting pictures or illustrations in accordance with the topics discussed [3]. So it can be concluded that an encyclopedia is a book that contains descriptions accompanied by pictures / illustrations that aim to clarify a topic discussed.

An encyclopedia in a learning process can be an enrichment material outside the main material delivered by educators to students, encyclopedias can make students understand more about the material being discussed, encyclopedias provide a more in-depth explanation [4]. Then [5] suggests that the encyclopedia has a complete and detailed explanation or discussion and is equipped with pictures so that readers can better understand and understand the information obtained.

2 Methods

This research uses descriptive quantitative method. The chosen research subjects were students of the Citizenship Education Program FKIP Unsri who were randomly selected (Random Sampling) based on semester levels. The data collection technique used a questionnaire and a short interview. The data analysis technique was done by calculating the questionnaire score and describing it.

3 Result And Discussion

The study began by giving a questionnaire to students who were randomly selected based on semester levels, a total of 80 respondents consisting of students in semester 3, semester 5 and semester 7. From questionnaire result see **Figure 1**,

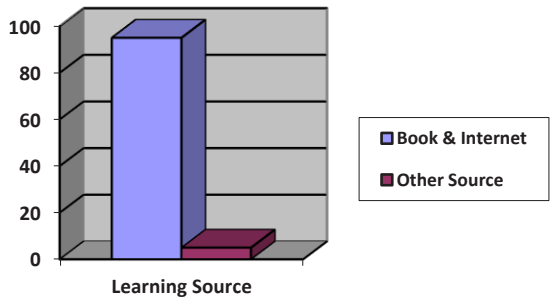

Fig. 1. Student Learning Source

5% of respondents answered variously such as lecturer power points, videos, journals and lecturers who teach are their learning resources. This shows that books and the internet are the biggest learning resources used by students in participating in Citizenship Education lessons.

In Aspects helped in understanding the course material and also these learning resources were able to make the learning process interesting, for a result see **Figure 2**.

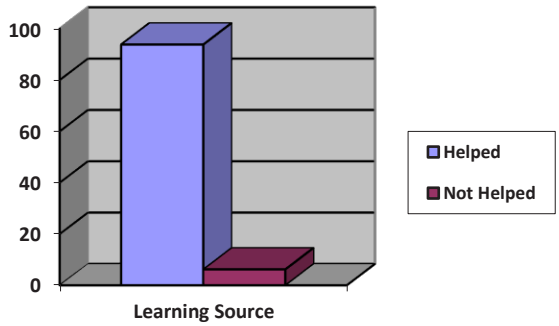

Fig. 2. Effect Learning Source

There are still 6.2% of respondents who stated that their learning resources so far have not helped in understanding the material being taught, and also these learning resources have not attracted them to participate in the learning process. In connection with this, an in-depth process was carried out through interviews with 6.2% of respondents in relation to their statements who felt their learning sources did not help in understanding unattractive learning materials and resources. The results of the interview showed that these learning resources were not attractive because they contained long texts so that students were lazy to read them, besides that, learning resources were not equipped with pictures that were able to support understanding of the material. Because of the less attractive learning resources, students are less interested in participating in the Civics learning process.

Furthermore, from the questionnaire data, it can be seen that all respondents stated that they liked learning resources equipped with images such as encyclopedias, , see **Figure 3**,

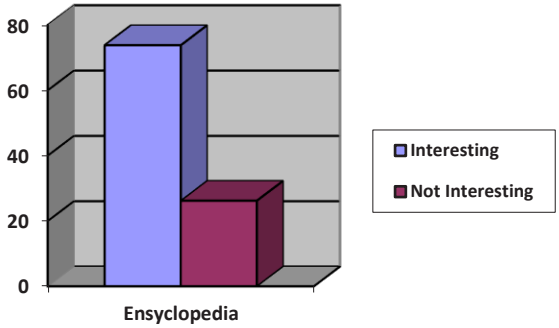

Fig. 3. An Interest in Encyclopedia

73.8% of respondents said encyclopedias were more interesting than ordinary text books. And 90% of respondents said encyclopedias helped in understanding the material, see **Figure 4.**

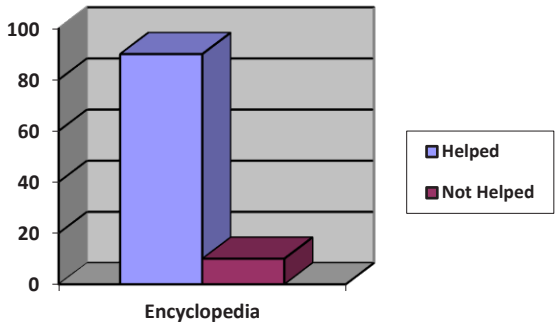

Fig.4 Usefullness an Encyclopedia

The questionnaire data illustrates that most respondents want the encyclopedia to be their learning resource when following a learning process. Suwarno [6] stated that the encyclopedia is a list of subjects accompanied by descriptions of the definition, background and bibliographic data arranged alphabetically and systematically. Furthermore, [3] suggests that an encyclopedia is a material that contains information along with interesting pictures or illustrations that match the topics discussed. Based on this definition, it can be concluded that an encyclopedia is a book containing information and is accompanied by interesting pictures according to the topic and is arranged systematically. Encyclopedia is a source of enrichment for the learning process in addition to other learning resources such as textbooks and modules. An encyclopedia is considered appropriate as a companion teaching material for teachers and students because the encyclopedia provides a brief but detailed explanation [7-10]. Ridwan and Hambali in [11] suggest that the large number of learning resources used can make it easier for students to obtain information, knowledge, experience and skills in the learning process. Given that learning resources are one of the determining factors in the success of a learning process, it becomes important to present a learning resource that is attractive to students.

Learning sources according to Dageng [8] are anything that is in the form of objects and people that can support learning so that it includes all possible sources that can be used by the teaching staff to create learning behavior. Furthermore, Sudjana [9] said that there are 2 learning resources, namely (1) designed learning resources, namely learning resources that are deliberately designed or developed as a component of an instructional system to provide focused and formal learning facilities. (2) used learning resources, namely learning resources that are not specifically designed for learning purposes and their existence can be found, applied and utilized for learning purposes. From several definitions of these learning resources, it can be concluded that learning resources are all that can support learning, whether deliberately made or not specifically designed and able to be used by the teaching staff in the learning process.

To support the achievement of Civics learning objectives, learning resources are needed that are able to facilitate the delivery of existing material to students. The right learning resources will help students understand the learning material, dense learning material such as Civics, if it is not packaged in an interesting and concise manner, it will not contribute greatly to improving students' understanding. Mulyasa [10] suggests one of the factors that causes the

low quality of learning, among others, because learning resources have not been utilized optimally by both teachers and students.

Civics are one of the compulsory courses developed in higher education units as mandated in Law no. 12 of 2012, has a broad scope, especially in the field of governance and democracy and aims to create a civilized society. According to Mansoer [11] in essence 'Civics is the result of a synthesis between civic education, democracy education, and citizenship which is based on the Pancasila philosophy and contains Indonesian national identity and content material about state defense. . It is hoped that through Civics learning there will be individuals who have an awareness of their rights and obligations towards national development which are manifested in various active roles in every area of life.

4 Conclusion

It is important to present interesting learning resources in the learning process so that students' understanding of the material being taught can be further improved and able to achieve their learning objectives. Encyclopedias can be an alternative learning resource as well as enrichment in Civics lectures to help students better understand the material being taught as well as make learning more interesting because it contains many pictures and shorter explanations.

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Constraints to the Application of Online Learning during the Covid-19 Pandemic

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Abstract. The Covid-19 pandemic is rapidly changing many aspects of life. The learning process is also forced to adjust quickly. This study aims to reveal the effectiveness of online learning and in detail reveal the obstacles to implementing online learning during the Covid-19 pandemic based on several recent studies. This study applies the literature review method and journals related to the constraints and effectiveness of online learning, especially during the Covid-19 pandemic. The data collection technique was done by using observation, questionnaire, interview and documentation. The population in this study were all undergraduate students of Semester VI with a sample of 32 students who were taken by simple random sampling technique. The results of this study reveal that online learning during the Covid-19 pandemic has been ineffective and there are still many obstacles to be faced. In order for learning to be effective and smooth, special guidance is needed for both teachers and students.

Keywords: Learning Constraints, The Covid 19 Pandemic, Online Learning.

1 Introduction

Education is a conscious and planned process carried out to those who are given responsibility, namely educators to educate students so that they have character and behavior by the ideals of the goals of national education. “Education is expected to be properly directed to make students able to achieve the process of maturity and independence in social life” [1]. Therefore, education should be carried out utilizing continuous and intensive.

The educational efforts above have not been fully implemented properly, the real obstacle now is the outbreak of a pandemic caused by the Corona virus (Covid 19) in almost all parts of the world, the impact of this pandemic is devastating in all aspects of life. As the impact of one of them in the field of education, especially in changing all processes in classroom learning. There are many ways that the government has done to prevent its spread. One of them is through a circular letter from the Ministry of Education and Culture (Kemendikbud) of the Directorate of Higher Education Number 1 of 2020 concerning the prevention of the spread of Corona Virus Disease (Covid-19) in universities. Through this circular, “The Ministry of Education and Culture gives instructions to educational institutions and universities to organize distance learning (online) and advises students to study from their homes” [2].

As stated in the Ministry of Education and Culture's circular information above, several universities responded swiftly to these instructions, one of which was the University of Indonesia which issued a circular on alertness and prevention of the spread of Covid-19 infection within the University of Indonesia. According to Yandwiputra, that the letter contains 10 points, one of which is an appeal to change face-to-face learning into distance learning) [3].

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As reported by Indonesia, that there are at least 65 universities in Indonesia that organize lessons from home to prevent the spread of Covid-19) [4].

In an effort to prevent the spread of Covid-19, the world health agency (WHO) "…recommends temporarily stopping activities that could potentially cause crowds. For this reason, conventional learning that gathers many students in one room needs to be reviewed for its implementation" [5]. "Learning must be carried out with a scenario that can minimize physical contact between students and other students, or between students and lecturers. In line with these conditions" [6], according to Milman, "…the use of digital technology allows students and lecturers to be in different places during the learning process" [7].

One of the alternative forms of "…learning that can be carried out during the Covid-19 pandemic emergency is online learning" [8]. According to Moore et al. [9], online learning refers to "…learning conducted using an Internet network with connectivity, accessibility, flexibility, and the ability to generate various types of learning interactions" [10]. Research efforts stated by Zhang et al. show that "The use of the internet and multimedia technology is able to change the way of conveying knowledge and can be an alternative to learning carried out in traditional classrooms" [11].

The process of distance learning (online) in its implementation requires the support of electronic devices such as smart phones, computers, android tablets and laptops that can support and access information. According to Korucu & Alkan, that "The use of mobile technology has a major contribution in the world of education, including the achievement of distance learning goals" [12]. implementation of online learning can be supported by various media [13]. For example, virtual classes use Edmodo, and Google Classroom services [14],[15], and instant messaging applications such as WhatsApp [16]. "Online learning can even be done through social media such as Facebook and Instagram" [17].

However, this is because "The use of information and communication technology with online learning that is not prepared from the start has resulted in a lot of obstacles faced by both educators and students [18]. This study aims to determine what factors are the obstacles in the application of online learning during the Covid-19 pandemic at the FKIP, University of Lampung. Combined with the discovery of obstacles encountered in online learning, this research is expected to be used as a consideration for lecturers and students in the process of teaching and learning activities. Therefore, teaching and learning activities can be performed optimally.

2 Method

This research is a descriptive verification research with ex post facto research methods and surveys. This research was conducted to determine the obstacles to online learning during the Covid-19 pandemic. The population used was the 6th semester students of FKIP University of Lampung. The sample was taken in this study using simple random sampling technique with a total sample of 32 students.

The data collection techniques used by researchers are observation, recording, interview and questionnaire survey techniques. 1) Observation, this technique is carried out to observe the conditions in the field when conducting preliminary research, namely to observe the learning process, see the facilities and observe the lecture environment. 2) Documentation is used to collect data that is already available in document records. In social research, the function of data derived from documentation is mostly used as supporting and complementary data for primary data obtained through observation and interviews 3) Interviews are used to obtain data in the

form of data in preliminary studies to find problems that must be researched, to determine student needs and to find out the problem in depth, and 4) The questionnaire in this study was conducted by giving questions or written statements to the research sample to obtain information about student needs for the learning characteristics needed in learning.

3 Results and Discussion

This research was conducted to obtain data as the research objectives, namely 1). Knowing the obstacles to implementing online learning during the Covid-19 pandemic, and 2) Knowing the effectiveness of online learning during the Covid-19 pandemic. In line with these objectives, the researchers distributed questionnaires. Based on the results of distributing questionnaires to 32 respondents, the percentage of data for each question item was obtained as follows.

Table 1. Results of the Distribution of Input Variable Questionnaires in Online Learning.

Variable		Statement	Percentage of Respondents			
			Totally disagree	**Disagree**	**Agree**	**Strongly Agree**
Learning Input	Lecture Materials	The material is in accordance with the learning objectives	-	-	46.9%	46.9%
		The material is equipped with media and supporting materials	-	12.5%	59.4%	28.1%
		The material is in accordance with the development		12.5%	56.3%	31.3%
	Lecture Facilities	Learning tools and media are available in full	6.3%	25%	43.3%	25%
		Class management	-	21.9%	62.5%	15.6%
	Lecturer	Lecturers have qualifications in the material being taught	3.1%	3.1%	34.4%	59.4%
	Curriculum	Complete lecture tools		18.8%	62.5%	18.8%

Based on the data from the table above, it can be seen that the percentage distribution of learning input for aspects of learning material is in a good category, which makes the obstacles in learning input are media, teaching materials, aids, lecturer qualifications, and learning devices.

Table 2. Results of the Distribution of Process variable Questionnaires in Online Learning.

Variable	Statement	Percentage of Respondents

			Totally disagree	Disagree	Agree	Strongly Agree
Process	Lecture Strategy	The learning process is in accordance with student development	-	25%	71.9%	12.5%
		The lecture process is in accordance with the model / method presented	-	25%	53.1%	21.9%
	Learning Media	The media provided is in accordance with the learning objectives	-	15.6%	75%	9.4%
		Learning media in accordance with student development	-	12.5%	68.8%	18.8%
	How to teach lecturers	Lecturers can guide the class well	-	6.3%	56.3%	37.5%
		Lecturers master the material well	-	3.1%	50%	46.5%
		Lecturers always provide motivation when learning online	-	12.5%	62.5%	25%

Based on the table data above, it can be seen that the percentage distribution of the learning process in its implementation is in the moderate category, which makes the obstacles in the learning process are methods, media suitability, guidance, mastery of material, and giving motivation.

Table 3. Results of the Distribution of Output variable Questionnaires in Online Learning.

Variable		Statement	Percentage of Respondents			
			Totally disagree	Disagree	Agree	Strongly Agree
Learning outcome test output	Theory	Final exam questions or assignments in accordance with the material being taught		6.3%	53.1%	40.6%
		The online questions provided can foster students' thinking.		12.5%	68.8%	18.8%
	Construction	The question sentences did not confuse students		21.5%	56.3%	21.9%
		Pictures and graphics provided can be read clearly		15.6%	53.1%	31.1%
	Language	The language used in online questions is in accordance with the rules		3.1%	71.9%	25%

	of Improved Spelling (EYD).			
	The language used in online questions can be understood easily	9.4%	56.3%	34.4%

Based on the data from the table above, it can be seen that the percentage distribution of learning output in its implementation is in a good category, which makes the obstacles in the output of learning outcomes are the suitability of the questions, the clarity of the questions, and the language used. These factors ultimately result in less optimal learning quality.

4 Discussion

In the current era of globalization and information, "The use of technology in learning has become a necessity and demand" [19]. however, its implementation is not an easy thing. When using media, we must pay attention to several techniques to make the best use of the media used and not deviate from the goal of learning media [20].

Learning can take place more dynamically than if it is only learning to use computers. "People can study anywhere, anytime and under any situation" [21]. Lectures can not only be done through face-to-face processes between lecturers and students. Now, students can still study even though they are far from the lecturer. In line with this, Trianto states that "Learning is a conscious effort from a teacher to teach students (directing student interaction with other learning sources) in order to achieve the goal" [22].

The constraints that have been described in the research results are learning inputs in the form of: media, teaching materials, aids, lecturer qualifications, and learning devices. In the learning process in the form of: methods, media suitability, guidance, mastery of the material, and giving motivation and the output of learning outcomes in the form of: suitability of questions, clarity of questions, and the language used. These factors ultimately result in less optimal learning quality. These various obstacles occur because of forced transitions or changes in lectures, educators should not be ready to prepare to change teaching online based on technology compared to conventional lectures. As stated by Sadiman, that in terms of procurement readiness, media are grouped into two types, namely ready-to-use media because it is a trading commodity on the broad market in a ready-to-use state (media by utilization) and a design media that needs to be designed and specially prepared for specific learning purposes and objectives [23].

These constraints are also caused by differences in age and proficiency in using technology between students and lecturers. Students today can be said to be digital natives. According to Virginia, the generation called digital natives is a generation that grows when technology develops [24]. In contrast to digital immigrants, digital natives are very fluent in the use of new media [24], this is because new media give rise to technological divide. This condition is a kind of gap between those who are sophisticated in terms of technology and those who are not sophisticated in terms of technology [25].

Another fact about the habit of digital natives is their interaction patterns. Palfrey & Gasser state that the habit of digital natives includes: 1) This generation is different. They learn, work, write and interact with others in a different way. 2) Prefer reading blogs than newspapers. 3) Prefer to meet other people online. 4) Go to the library less often. 5) They prefer to send instant

messages (IM) rather than pick up the phone. 6) They adopt and play with pets online instead of playing with real pets. And 7) The majority of aspects of their life are mediated by digital technology [26]. So it can be seen that in the online learning process, educators can always adjust to their skills or skills in using technology.

5 Conclusion

The use of technology in learning is an irresistible necessity, online learning will always be carried out if the Covid 19 pandemic has not ended. As educators, they also have the same obligation in managing the class with an online learning system, always adapting to the existing dynamic developments. It is hoped that the findings of various obstacles in this study will be valuable input for educators in conducting online learning.

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Online Focus Group Discussion (OFGD) Model Design in Learning

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Abstract. This study aims to (1) develop learning innovations in the network through the Online Focus Group Discussion (OFGD) model and (2) implement OFGD as a learning media for improving students' public speaking skills of Personality Development. The results of the implementation of the OFGD model in learning are to develop students in using ICT tools as communication media in the network to have competitiveness in the era of the industrial revolution 4.0. This study phase refers to the six steps of developing the ASSURE model. The results of the study obtained FGD method online with the term OFGD consisting of 5 stages. The implementation of OFGD learning models shows the students' public speaking skills, the ability to manage discussions, as well as the ability to use information technology as a communication tool

Keywords: Learning Design, OFGD, Public Speaking Skills

1 Introduction

Education 4.0 is an education era that is influenced by the industrial revolution 4.0. This education pattern utilizes digital technology in the learning process and is known as the cyber system. This system is able to make the learning process take place continuously without time and space limits. This can be achieved by optimizing the use of technology as a tool of education is expected to produce Human Resources as the output with appropriate quality graduate demands for jobs and digital technology. Education actors must also be alert to adapt to various existing developments.

School is an educational institution that implements the learning process appropriately to help foster the competence and competence of students. The competence of students in the learning process must develop optimally and they can live, run, and count in 21st century society[1]

As one of the universities that implements an Online Learning System, Universitas Teknokrat Indonesia committes to equipping the students to be competitive in the era of industrial revolution 4.0. The role of educators in the preparation of a more innovative learning system is carried out through the development of learning models to improve students' abilities in the use of ICT. Learning designs that integrate ICT by integrating physical, digital and human objects in the Personality Development course are aimed at producing competitive and skilled of univercities graduates, especially in the technological literacy aspect. This integration can be applied through the online Focus Group Discussion (OFGD) method.

OFGD will optimze the competence of students in ICT mastery. It answer the challange of 21st Century Skills that the students must have the integration of Knowledge, Skills and Attitudes as well as ICT mastery developed through: (I) Critical Thinking Skills and Problem

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Solving Skills, (2) Communication Skills, (3) Creative Skills and Innovation Skills and (4) Collaboration Skills[2]. Minister of Education and Culture (Mendikbud) Muhadjir Effendy pointed out that every student must have five competencies; (1) Ability to think critically, (2) Have creativity and innovative abilities, (3) Good communication skills and abilities, (4) Ability to work together, and (5) Have high self-confidence. It is an asset that is needed to be able to compete in the era of industrial revolution 4.0.[3]

FGD is a systematic process of collecting data and information on a very specific problem through group discussions[4]. The FGD in this study was intended to gather information about students' understanding of the application of Personality Development courses which are given online in everyday life. Through FGD, students are invited to have the ability to think critically, creatively and innovatively in preparing presentations and group discussions. Furthermore, the implementation of a systematic and focused discussion on a particular focus of problem can build good communication skills and skills that require cooperation and high self-confidence so that the FGD implementation process can run smoothly. The Focus Group Discussion (FGD), which is also referred to as group interviewing, is essentially a qualitative research methodology. It is based on structured, semi-structured, or unstructured interviews[5].

The integration of ICT in this course was then developed with a pattern of discussions and presentations conducted online with the term of Online Focus Group Discussion (OFGD). The development of the OFGD learning model aims to equip students with the ability to design online meetings in the form of presentations and discussions, as well as to collect audience opinion data based on determined themes using the video conference platform as an online discussion medium. Thus, the results of implementing the OFGD model in learning are expected to be able to develop students themselves in using ICT devices as a communication medium in the network so that they have competitiveness in the era of the industrial revolution 4.0.

This study aims to (1) develop online learning innovation through the Online Focus Group Discussion (OFGD) model, as stated by Irwanto[4] that the implementation of FGD requires careful planning, it takes some preparation; forming a team, choosing and arranging a place, preparing logistics, determining the number of participants, and recruiting of participants; (2) implementing OFGD as a learning media for Personality Development as an effort to improve students' public speaking skills, in accordance with the description of the curriculum according to I Ketut Made[6], that it is necessary to formulate and implement self-development programs that aim to provide opportunities for students to develop and express themselves, according to the needs, talents, and interests of each students in accordance with school conditions.

OFGD implementation in Personality Development learning to improve students' Public Speaking ability to focus on the latest issues, in this case the topic of Covid-19 which is given online. Through FGD, students are invited to have critical, creative and innovative thinking skills in preparing presentations and group discussions. Furthermore, implementing a systematic and focused discussion on a particular problem can build good communication skills and skills that require cooperation and high self-confidence so that the FGD implementation process can run smoothly.

2 The Method of Study

This research stage refers to the six steps of developing the ASSURE model[7]; (1) Analyze Learners, the process of identifying and analyzing student characteristics tailored to learning outcomes. Regarding the Learning From Home environment (LFH) which was applied during the Covid-19 pandemic, knowledge literacy about Covid-19 as discussion material must be prepared by students, the ability to use ICT and manage online discussions and how to behave in discussions as initial provisions for students to carry out learning implementing OFGD; (2) States Objectives, stating the standards and specific learning objectives for public speaking material in the Personality Development course; the ability of students to apply visual pose, to communicate and to organize discussions online; (3) Select Methods, the process of selecting methods, media and teaching materials to be used in learning. The applied LFH utilizes online learning which is applied through materials delivery using SPADA of Universitas Teknokrat Indonesia, public speaking skills demonstration through OFGD and evaluation to determine the achievement of Personality Development learning targets; (4) Utilize Media and Materials is a teacher planning step to use technology, media and materials to achieve learning goals. This stage is carried out based on the 5P steps, namely Preview (media and materials), Prepare (media and material technology), environmental preparation, student preparation, and providing learning experiences. Computer-based technology is applied in learning. Teaching materials in the form of presentation media and or instructional videos are presented online on SPADA of Universitas Teknokrat Indonesia for Lecturers and Students and showing public speaking skills using the video conference platform as an online discussion medium as OFGD media; (5) Require Learner Participation, where effective learning requires active involvement of students. LFH demands student independence in learning. Learning activities involve an active role of students including providing a discussion "room" using the video conference platform as an online discussion media. Active student involvement and evaluation of the ability to manage discussions online show whether the method used is effective or not; (6) Evaluate and Revise, the assessment of knowledge and skills according to the student's efforts in the learning process and the success of the OFGD implementation in improving public speaking skills analyzed for follow-up reflection. The process of ASSURE Model is decribed on Picture 2.1.

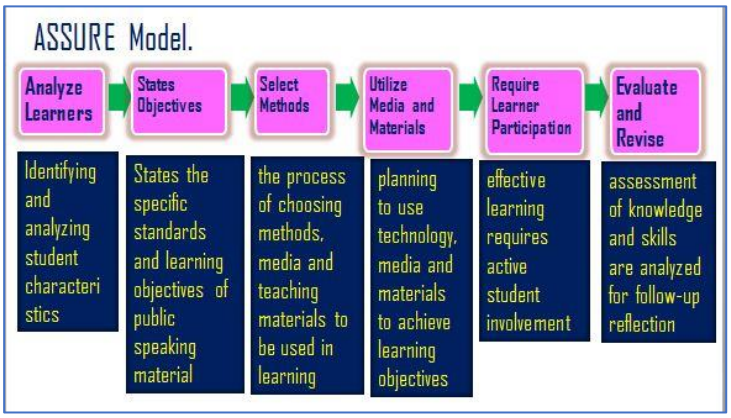

Fig. 1. ASSURE Model Learning Process

Data collection through performance assessment using observation sheet displays the communication skills of students in the discussion forum.

By considering the success of learning outcomes, Yulianti[8] developed a public speaking assessment based on the following matrix.

No.	Assesments Aspects	Assesment Score		
		0	5	10
1	Eye Contact	Avoid audiences' eye contact	Take eye contact to some audiences	Take eye contact to all audiences
2	Facial Expression	Expressless, look afraid	No smile, look doubt	Rilex, please
3	Voice Intonation	Stammering	Low, doubt	Firm, convincing
4	Body Posture	Looks uncomfortable	Sometimes it doesn't fit to visual pose	Implementing visual pose
5	Body Movement	Awkward	Doubtful	Firm, convincing
6	Hand Movement	No movement	Excessive movement	Gestures to emphasize explanations
7	Speaking Ethics	Offensive language	Polite, Disorganized Un - systematically	Polite, well – organized, systematically
8	Material Mastery	Reading	Memorizing	Explaining fluently
9	Grammatical	Too many grammatical errors, so the explanation can bot be understood	Sometimes makes errors but it does not influence the meaning	Perfect
10	Pronunciation	Seriously mistakes, so the explanation can bot be understood	Easy to understand, eventhouh mother tongue influences	Clear and be understood

Fig. 2. Assessment aspects of public speaking

3 The Result and The Discussion of Study

The prospect of developing an Online Focus Group Discussion (OFGD) learning model is an innovation in the field of education that is applied using the FGD method which can provide new experiences in the world of education. Through OFGD, students are equipped with the ability to manage discussions and presentations online to achieve learning objectives, especially in the Learning from Home (LFH) condition as a result of learning during the Covid-19 pandemic. This is done as an effort to create Indonesian society that is able to compete in the Industrial 4.0 era towards Society 5.0, so the participation of educational institutions is needed to develop learning innovations. In accordance with the goal of national education is to "develop the potential of students to become human beings who believe and fear God Who Almighty, noble, healthy, knowledgeable, competent, creative, independent, and a democratic and responsible citizen[9]. The process of learning process is described on Figure 3.1.

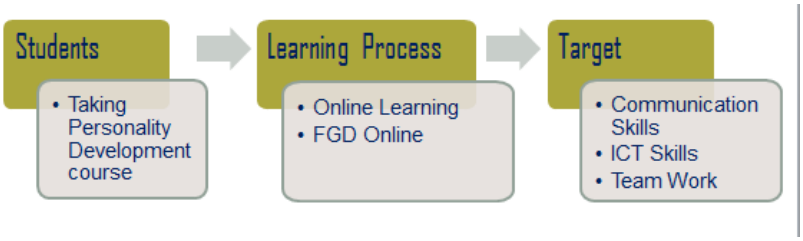

Fig. 3. Learning Process

FGD is a systematic process of collecting data and information on a very specific problem through group discussions[4]. FGD is intended to gather information about students' understanding of the application of Personality Development courses in everyday life. To deal with the learning conditions during the Covid-19 pandemic, the Learning from Home Model (LFH), the FGD learning model was conducted online. Thus, students are invited to have critical, creative and innovative thinking skills in preparing presentations and discussions in a group.

Participant recruitment follows participant identification. Recruitment can be expensive, difficult, and continues to be a source of contentious debate (Krueger & Casey, 2000)[10]. Basically, FGD can also be used in various domains and objectives, for example (1) decision making, (2) needs assessment, (3) product or program development, (4) knowing customer satisfaction, and so on[11]. In accordance with the characteristics of the FGD which aims to explore and obtain a variety of information on a particular problem or topic which is very likely to be viewed differently with different explanations. So, FGD can also be applied in learning, especially in Personality Development courses in developing student communication skills.

The implementation of OFGD requires careful planning, several preparations are needed as follows: (1) forming a team; (2) selecting and arranging a place; (3) preparing logistics; (4) determine the number of participants; and (5) participant recruitment. The FGD Facilitator Team usually consists of 2-3 people, consisting of: discussion guides (facilitator-moderator), note takers (note takers) and observers[4], the number of FGD participants is smaller 4-7[12], there are 6-8 people[11]. The number of OFGD participants is limited to maximize their opportunity to express their opinion. The phases are described in Table 1.

Table 1. Learning Phases of the FGD Model

Phase	Description
Phase1 **Determination of themes, methods and techniques of discussion**	Determine the theme/ topic, explain the discussion patterns, techniques and technology used as a discussion media
Phase 2 **Learning organization**	Create discussion groups and discuss procedures or steps for collecting and analyzing data; presentation, assignment of duties as Host along with the minutes, Moderator and Presenters, and reporting the results of discussions.
Phase 3 **Data collecting and analysis**	Gather information, facts, and data according to a given theme, followed by analyzing activity
Phase 4 **Implementation**	Implementing a focused discussion determined according to the theme and explore the question - the question or issue to be discussed together and

	then draw conclusions - conclusions (answers or quick explanation) the results of discussions
Phase 5 **Evaluation and Reflexion**	At the end of the learning process, Lecturers and Students evaluate and reflect on the FGD activities and the results of the implementation of their tasks reflect on the FGD activities and the results of the implementation of their assignments.

The results of the study obtained the OFGD learning model to display students' public speaking skills, the ability to manage discussions, as well as the ability to use information technology as a communication tool.

The implementation of OFGD in learning, obtained the results of the measurement of the learning model using 3 scales, the percentage of the measurement value was obtained from the number of samples taken from 355 students. The measurements is taken from Suharsimi[13]. The result of assesment is only take 3 scales; Excellent (A), Good (B), and Fail (E).

The results obtained are the maximum value = 10 based on the 10 components of the public speaking skills assessment, the average score is 8.1, and the standard deviation is 1.8. Based on this data, there were 149 students (42%) who received a very good assessment, 153 students (43%) received a Good assessment, and those who were deemed not meeting the standards in showing their public speaking skills were 53 students (21%).

Tabel 2. The result of the percentage measurement of the learning value

SCALE	ASSESMENTS		
	EXCELLENT	**GOOD**	**BAD**
Public Speaking Skills	42% (149 students)	43% (153 students)	21% (53 students)

Competent human resources (HR) are one of the main factors determining the success of the transformation of the 4.0 era, therefore improving the quality of human resources (HR) needs to be prioritized. This can be done by preparing students who are able to have competitiveness by developing their competence and potential in optimizing the function of ICT so that the output of Human Resources (HR) with graduate quality is in accordance with the world of work and the demands of digital technology. One form of implementation of 21st century skills in education can be developed through increasing the communication skills of students through learning public speaking.

4 Conclusion

The Focus Group Discussion (FGD) learning model is designed in 5 (five) stages; (1) Determination of discussion themes, methods and techniques; (2) learning organization; (3) data collection and analysis; (4) Implementation; and (5) Evaluation and reflection. The results of the FGD model trial in Personality Development learning in Universitas Teknokrat Indonesia on 355 student samples; 42% of students showed excellent public speaking skills, 43% of students demonstrated good skills and 21% were still unable to demonstrate their skills.

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The Formation of Digital Citizenship Ethics Through Kampung Cyber Civic Community

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Abstract. The strong current of globalization is driving the rapid development of the digital era and technology so that the term digital citizenship has emerged which has positive and negative impacts. hate speech and harassment using technology (cyberbullying.) The formation of digital ethics is an important thing that must be done, both through education in schools and education in the community. The formation of digital ethics can be through civil society as a form of education in society. One of them is the Kampung Cyber community in Yogyakarta. The method used in this research is descriptive leather with data collection through literature study. The results showed that starting from the policy of the Government of the Special Province of Yogyakarta, which launched the Yogyakarta Cyber Province program in 2006. The Kampung Cyber Community has an important role in helping people to be literate about technology and shape the digital ethics of society. Through the concept of Cyber Village and Omah Wisata 36, it became the main program to introduce technology to the community and the formation of digital ethics. The formation of digital ethics is also carried out through the implied message of mural art found in every corner of Kampung Cyber

Keywords: Digital Ethics, Civic Community, Kampung Cyber

1 Introduction

The digital era has formed citizens who in everyday life are accustomed to using the internet as a necessity or better known as digital citizenship. APJII survey results show that from year to year, internet users in Indonesia have increased, this year up 10.12% from the previous year. The increase in internet users reached 27 million users. This means that there are 171.17 million internet users out of a total of 246.16 million Indonesians [1]. So that Indonesian citizens enter into digital citizenship [2] that digital citizens are defined (digital citizen) are those who use technology frequently, who use technology for political information to fulfill their civic duty, and who use technology at work for economic gain. So it's no wonder that the term digital citizenship is widely known to the public.

The use of technology must be accompanied by existing ethics so that it is directed and does not cause conflicts between users. Digital ethics can be said to be an important element especially in today's digital era. Digital ethics is meant to safeguard the feelings and comfort of other users. However, what happens digital ethics is often ignored by the public. Data presented by the Ministry of Communication and Information Technology states that there are as many as 800 thousand sites in Indonesia that are indicated as spreading fake news and hate speech. In addition to hate speech, another crime that is often committed is cyberbullying. Data

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obtained from the police shows that hate speech crimes.In 2018, the police handled 225 cases, with 118 cases being resolved. Meanwhile, in 2019 there were 101 cases. defamation there were 1,271 cases, of which 565 cases have been resolved. Meanwhile, in 2019 there were 657 cases of defamation [3]. These crimes were committed through various social media including Facebook, Instagram, WhatsApp, Path, Twitter, and so on. The data above shows how low the digital ethics of the Indonesian people are as part of digital citizenship.

Digital ethics can be interpreted as a ticket that a person must have to enter a community. In essence, digital ethics is a standard of internet behavior as well as social behavior that applies in the online world [4]. Describes communication ethics that can be used in the digital world with the concept of "THINK", namely:

1) Is it True? Is your post true? or is it just an issue where the source is not clear?
2) Is it Hurtfull? Will your post hurt other people's feelings?
3) Is it Illegal? does your post violate the law?
4) Is it Necessary? is your post important? posts that are not important will annoy others.
5) Is it Kind? Santunkah your post? make sure the post that is produced does not use words that can be offensive.

So from the explanation above, digital ethics must be applied by every digital citizen. Microsoft in Fostering Digital Citizenship provides an explanation of the reasons why digital citizenship ethics should be developed, namely: (1) rules and social norms are sometimes unclear. They must learn about digital citizenship and develop a sense of ownership and personal responsibility to make good, ethical decisions in the online world; (2) the online world presents great opportunities for young people, but it is not without risks. We can mitigate some of those risks by helping young people develop a strong sense of digital citizenship; (3) rather than relying solely on protective measures, an approach to online safety that includes digital citizenship will help young people safely interact in the online world. Teaching them about digital literacy and digital ethics and etiquette is no longer merely an option; it is an imperative [5]. So building citizen digital ethics is something that must be done, so that norms can be created in interacting in cyberspace or social media, especially for Indonesian citizens.

Establishing digital ethics can be done through formal education in schools and education in the community. A synergy between the government and community participation is needed to instill digital ethics, one of which is through the civil society community. In this case, the term civic pertains to individuals as members of society, and civic communities can be conceptualized as places where the form of local social and economic institutional organization facilitates a strong social fabric by densely interweaving citizens together through mostly locally oriented institutions and organizations. So that the community has an important role in society, one of which can be used to build citizens' digital ethics [6].

One community that is concerned about the digital era is Kampung Cyber, which is located at Taman KT I / 434, Patehan, Kraton District, Yogyakarta City. The initial goal of establishing Kampung Cyber was to help people become technology literate. In addition to the activity of providing knowledge about computers and the internet to residents which was carried out in stages, this was the forerunner of RT 36 residents' activeness in using the internet. Along with the development of the digital era, the cyber kapung is also one of the places for digital education.

Therefore this research will focus on discussing the role of Kampung Cyber as a civic community in building citizen digital ethics. There are several programs carried out by Kampung Cyber to encourage the widespread use of technology, the internet and to shape the digital ethics of citizens there.

2 Methods

The research method chosen is a qualitative method. Qualitative research examines participants' perspectives with interactive and flexible strategies. Qualitative research is aimed at understanding social phenomena from the perspective of the participants. Thus qualitative research is research that is used to examine the conditions of natural objects where the researcher is the key instrument. The research location chosen was Kampung Cyber which is located at Taman KT I / 434, Patehan, Kraton District, Yogyakarta City, on the grounds that Kampung Cyber is one of the communities that has a purpose related to forming citizen digital ethics. In this study, using field observation techniques, interviews and literacy studies. Informants in Kampung Cyber were selected based on purposive sampling and snowball sampling techniques, including the village administrators and some of the people there. The validity test of the data used in this study used triangulation of sources. While data analysis techniques use qualitative data analysis from [7].

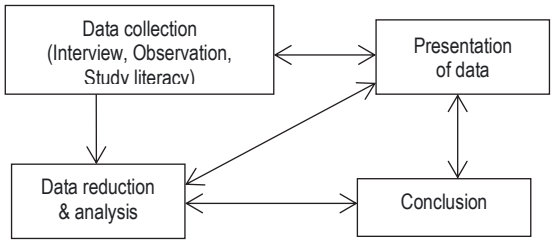

Fig 1. The research method

3 Result and Discussion

Yogyakarta is one of the provinces in Indonesia which has the privilege of implementing regional autonomy led by a Sultan. In 2006 the province of Yogyakarta launched the Jogja Cyber Province program as a form of implementing Electronic Government (e-Government). Electronic Government (e-Government) is an initiative developed to encourage the widest possible use of information and communication technology for the public and government in order to increase interaction with one another. Jogja Cyber Province is a provincial model that transforms community-oriented services based on information and knowledge using information and communication technology as an accelerator for provincial development that is competitive, comfortable, independent, efficient, and effective [3].

Jogja Cyber Province Blueprint with a focus on Digital Government Services (DGS). The development of DGS is the first step towards the Jogja Cyber Province as an initiative developed to encourage the widest possible use of information and communication technology for the public and the Government. Not only in the government environment that has

undergone a transformation to the digital era, but in the community environment has also experienced changes in the use of technology. So the emergence of various comminutas that lead to technology will encourage people to be literate towards technology, one of which is the Kampung Cyber community.

The civic community perspective is arguably distinct because it emphasizes the dense interrelations between the social, political, economic, religious, and other spheres of community organization. Most important, both perspectives emphasize informal integration and, hence, social control processes in the maintenance of community stability and well-being. The existence of a community of citizens in society will have a good impact because they are bound to one another [8]. The civic community can drive a change, in this case to shape the digital ethics of society. Such as Kampung Cyber as a form of civic community in society has an important role in introducing technology and shaping the digital ethics of the community considering the large number of hoax news and other crimes, especially on social media that occurred in Yogyakarta. Through Kampung Cyber it is encouraged to create changes in society so that they are literate towards technology and understand ethics in communicating in this digital era. So that cases of spreading hoax news, cyberbullying and defamation in Jogja can be reduced.

The role of Kampung Cyber in shaping the digital ethics of citizens is carried out through three programs, namely cyber village, Omah Wisata 36, and mural art. Where the three programs are related to one another. So that it can be described as follows:

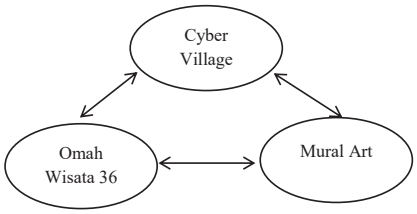

Fig 2. The programs of Kampung Cyber

3.1 Cyber Village

Cyber village was originally a program initiated by society Rt 36 Patehan, Kraton District, Yogyakarta City to introduce technology to. However, the program continued to develop and was implemented in other villages so that the Kampung Cyber Community was formed which was pioneered by Antonius Sasongko. However, this cyber village program is still the main program in Kampung Cyber in educating members there. The implementation of the cyber village program is one of the solution steps in accelerating Internet-based technology and information literacy as well as shaping the digital ethics of society. Cyber village is an ICT-based village that develops an Internet network system [9].

The implementation of the cyber village program is considered capable so that the use of technology and understanding of ethics runs well. Digital ethics as a standard in using digital technology based on regulations to be a polite person. So that in surfing and using social media, courtesy is needed. In this cyber village program, the formation of digital ethics is carried out by holding meetings at the village hall or at people's homes. Providing an understanding of technology and understanding ethics in its use are the main things that must be instilled. The

implementation of this cyber village program has three stages, namely planning, implementing and following up.

At the planning stage, the management of Kampung Cyber designs how to implement this program starting from the material to be provided, technical implementation so that it is easy to accept to follow-up plans to be carried out. At the implementation stage, community members will be gathered at the village hall or resident's house. During the presentation of the material, society members will be divided into several small groups and each group will be accompanied by a guide. This guide is responsible for introducing to the public about using and utilizing technology in everyday life, including using social media. Group guides are also responsible for shaping people's digital ethics. Follow-up is carried out with supervision of community activities in using the internet and visited web sites.

The ethics of communication that can be used in the digital world with the concept of "THINK" that before posting information or news, you must ensure that the information is correct, does not violate rules, does not offend and disturb others. This needs to be done so as not to cause conflict in society. Based on this concept, the cyber village program will develop several values that must be instilled in the community in order to form community digital ethics:

Commitment. The commitment referred to here is the ability to be a good technology user and social media user in accordance with existing regulations, especially for young members. This is because youth or adolescents use social media and use technology more frequently than those who are elderly. So instilling this commitment is expected to be able to bring change and reduce the spread of hoax news, hate speech starting from a small scope.

Responsibilities. The responsibility in question is to form social media and technology users in accordance with applicable rules or norms. Users are required to use social media and technology for positive things and be responsible for any news or information they spread. The responsibility here also relates to the management of Kampung Cyber, namely the development so that the existence of Cyber facilities does not have a negative impact on the social order. The Kampung Cyber management cooperates with youths to apply access hours regulations and frequently changes passwords. This was done so as not to interfere with society activities and children during school hours and the Koran. A form of responsibility to anticipate negative impacts carried out by local administrators through large village forums such as religious gatherings and meetings and often reminds both parents to always supervise children's activities when accessing the internet. At the same time, the committee also formed a content hunting team to block any members of the public accessing negative content. So that responsibility goes both ways, both from society members and from the management of Kampung Cyber.

Be honest. Honestly instilled here is to ensure the truth of the news or the content posted by users. Users inculcate honest behavior will be more selective in posting or receiving information. So by instilling this honest behavior internet users can minimize hoax news.

These three values are the main keys in shaping the digital ethics of the community there. However, it is not easy for the activists of Kampung Cyber to educate the public. This program is carried out so that the society is motivated and continues to learn in utilizing Internet-based

ICT. Because people so far rarely use technology to interact with one another. Gradually the existence of a new technology such as smart phones began to be accepted and used by the people of Kampung Cyber. Not only that, the formation of digital ethics that has been carried out has provided changes in the ethical order in the community, especially with regard to the use of the internet and social media. So that the cyber village program continues to this day. The hope is that this program can be applied in other areas so that rural communities can recognize and utilize existing technology and understand digital ethics.

3.2 Wisata Omah 36

The concept of Wisata Omah 36 was first promoted by the people of Rt 36 Patehan. Starting from the large number of people who are able to make crafts and processed, Wisata Oham 36 was formed. This concept makes Kampung Cyber a tourist spot in Jogja with the theme of modern technology. When we visit Kampung Cyber, we will find a variety of typical Yogyakarta regional handicrafts ranging from batik, bags, hats, and food made by the local people. So that even though Kampung Cyber carries the theme of modern technology, it still does not eliminate the traditional cultural values there. One of the interesting things about this Wisata Omah 36 is the educational tour of Kampung Cyber. This tour is one of the attractions of Kampung Cyber.

Kampoeng Cyber Educational Tour. There, we will learn many things about information technology and its application in the social life of Kampoeng Cyber. Whether it's for daily society communication to commercial interests, advancing the economy of the local people. In addition to introducing educational tourism technology, Kampung Cyber also teaches about ethics in communicating in digital media. Visitors will be presented with educational videos about what to do when communicating using digital media be it on the web, twitter, path and others. Educational videos also display shows about the dangers of hoax news, how to become a smart news reader, and so on. The goal is to invite visitors to become ethical and responsible digital citizens. In addition, Cyber Village also provides educational TV that visitors can touch and play with. This is so that visitors can learn more about Kampung Cyber.

The concept of omah 36 tourism supports the cyber village program. Various digital facilities are provided in this tourist attraction which is expected to be an attraction for the community. So that it can encourage people to learn about technology and understand the ethics in it. With the opening of the 36 Omah Tour, Kampung Cyber has been visited by many tourists both from the surrounding community and outside the region. This allows Kampung Cyber to shape the digital ethics of the community at large, not only for local communities.

3.3 Mural Art

Mural is one of the arts that is often found in Indonesia, both in rural and urban areas. Defines mural as a large painting made to support architectural space [10]. Basically, murals are made on the walls of large buildings. Murals are often used as an alternative media for street visual art / street visual art that serves as a forum to show people's aspirations through paintings with nuances of criticism, information, and as a means of unifying between artists and society. The message in mural art is conveyed through a visual form which is full of symbols, signs, codes and meanings that are depicted in these characters. Along with the development of the era, mural art is not only used to decorate space and strengthen architectural

figures, but the process considers and adds visual elements related to the message content and the context of the social environment.

Mural art is considered effective in conveying messages to the general public because a display that has aesthetic value can attract attention. Kampung Cyber is one that uses mural art to convey educational messages. Almost in every corner of Kampung Cyber, there are mural arts that contain educational messages. Here's an example:

Fig 3. One of the mural arts in Kampung Cyber about cultural values

The picture above is one of the mural arts taken in a corner of Kampung Cyber. In the picture, there are four wayang characters called Punokawan, conveying the message that "The modern era must not destroy and eliminate culture and life, we must think big". The message conveyed in the mural means that a person may follow the flow of modernization that is happening but still maintains one's own culture. Included in using technology, especially social media, must still uphold existing values. In other words, in using technology one must adhere to existing ethics. Respect for the rights of others is the main key in using technology, especially in media issues.

If we look deeply, there are a lot of mural arts in Kampung Cyber that can be found. Each mural that is made has its own message, including digital ethics. This was done by the management of Kampung Cyber because the messages conveyed visually were easier to receive than orally. Many murals convey about digital ethics, such as the prohibition of spreading hoaxs news, stopping bullying and so on. It is hoped that the many murals in Kampung Cyber can instill digital ethics in society.

4 Conclusion

Based on the description above, we can conclude that in an era of technology like today it is shaping up when digital society is important. Synergy is needed between the role of government and community participation. The existence of civil society has a big influence on change, especially in shaping the digital ethics of citizens. So that developing the existence of Kampung Cyber can be an alternative to form community digital ethics.

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The Application of MBTI to Analyze EFL Teachers' Teaching Styles

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Abstract. Recent data from previous studies show correlation between EFL teachers' teaching style and their personality types. This study was intended to analyze the significance of personality types in English teachers' style of teaching. The personality types used in this study are based on mental functions namely intuition, thinking, feeling and sensing, driven by orientation of energy based on introverted and extroverted traits. The Myers-Briggs Type Indicator (MBTI) is a commonly used instrument to identify personality types. Population of this study was English teachers at senior high school level. Responses to a survey regarding teaching style of 75 English teachers in Lampung were taken to obtain point of view regarding personality types and preference in applying teaching approach. The findings reveal that personality types based on MBTI are significantly correlated with EFL teachers' teaching style. Finally, it can be identified that personality types influence preferences and beliefs in applying teaching style.

Keywords: Myers-Briggs Type Indicator (MBTI), teaching style, personality, mental functions, EFL teachers.

1 Introduction

A large body of data concerning personality types and psychological factors has been reported to be influential in driving someone to make decision and build habits. In their descriptive case study, Russel and Avgerinou explored MBTI personality preferences of university teachers, as reflected in online teaching and learning situation. They classified personality preferences of the teachers and identified how each type of personalities affected students' learning experience and found that contrasting personalities between teachers and students caused some misunderstandings during teaching process. Despite the result of a specific previous study that confirmed the effect of different personalities in teaching and learning, Russel and Avgerinou stated that deeper analysis and further study was required to fully understand the correlation between personality types and teaching styles [1]. Further, a study specifically designed to analyze EFL teachers' personality types in relation to their teaching style might fill some gaps and enrich the understandings regarding personalities and teaching preferences issue.

Myers developed the concept of 16 personality types based on the theory of Carl Jung's Mental Function. Until recently, those types are indicated by the instrument called MBTI. Unlike the common perceptions about extraversion and introversion traits, Myers also stated that the concept of personality is extraordinarily dynamic and includes not only the direction of energy known as extrovert and introvert qualities, but also some mental processes such as thinking, feeling, sensing, and the use of intuition. These mental functions are stacked in such a

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systematic way known as the dominant function, auxiliary function, tertiary function, and inferior function [2].

More specifically, Myers mentions that each type has acronym based on its organized mental functions known as four MBTI dichotomies; Extraversion-Introversion Dichotomy (attitudes or orientations of energy), Sensing-Intuition Dichotomy (functions or processes of perceptions), Thinking-Feeling Dichotomy (functions or processes of judging), Judging-Perceiving Dichotomy (attitudes or orientations to the outside surroundings). The combinations of those functions create 16 different personality types with stacked dichotomies that drives each of them. For instance, ENTP is named based on its dominant extroverted intuition function (Ne), introverted thinking function (Ti) and combination of extroverted feeling and introverted sensing that creates perceiving quality. These functions, according to Myers might shift and altered based on the needs and emotional states of the individual [2].

Regarding the versatility of personality types by Myers, several research studies have been done to see the connection between the 16 types of personality and several aspects in life, including the teaching and learning. Some researchers found that the application of MBTI and the characterization of 16 personalities played significant role in the field of education, as well as in English Language Teaching.

Kise applied problem-solving approach to help teachers identifying changes in their students' performance. The result of her study showed that different personality types significantly influential in the decision making and action taking of teachers [3].

Another study by Rushton *et al*. examined the connection among heterogeneous College of Education programs selected by pre-service teachers and their personality attributes. The study provided the assessment results of 368 pre-service teachers in 5 different programs using MBTI [4]. Based on the results, different groups of different programs favored different mental functions. It implied that heterogeneous population may have different preferences in the use of mental functions of MBTI.

Behnam and Bayazidi investigated the relation between personality types of Iranian EFL teachers and their teaching styles in IELTS preparation class of adult EFL learners [5]. 40 teachers were involved and the result showed neither personality types nor other aspects such as gender or age affected teaching styles significantly. However, another study by Atlan explored the valuable potential of MBTI for identifying effective teachers. He conducted MBTI assessment for pre-service ELT teachers and found out 73% of the participants had the extroverted orientation energy with ENFJ as the most common types within 56 participants. According to Atlan, pre-service ELT teachers with the orientation of extroverted energy were more dominant as they could lead a group efficiently [6]. This study, in line with some previous ones, approved the positive influence of personality identification in EFL teaching and learning.

This study focused on analyzing the teaching styles of EFL teachers and their preferences in utilizing media by applying Myers-Briggs Types Indicators (MBTI). The aim of this study was to analyze and explain the significance of understanding personality types among English teachers in senior high school level, and its relation to their preferences in deciding teaching strategies and choosing media to use. Regarding the objective, the following research question is proposed:

Do teachers' teaching strategies and use of media show significant differences based on their personality types?

2 Methodology

2.1 Participants

This study took place in Lampung and involved the population of English language teachers at the senior high school level. Senior high school teachers were chosen since the subjects of English language were widely, and actively, encouraged in that particular level of education in Indonesian Curriculum. Further, language teachers in senior high school level were required to involve more interactive techniques and media in the process of their teaching. 75 English teachers from varied senior schools and non-formal educational institution such as English courses were targeted to participate in this study as they were included in a survey and in-depth interview.

2.2 Instruments

The participants completed a questionnaire consisted of 20 items to identify EFL teachers' preferences in applying teaching style and choosing media. The questionnaire items were the modified version of some items in the one created by NERIS Analytic Limited in their website, 16personalities.com [7], and was designed specifically to identify EFL teachers' preferences. The link to the questionnaire was distributed via social media and online messenger to reach the targeted 75 English teachers.

Each teacher firstly filled general information including their name, institution they teach at, and also their MBTI –based personality type. Should they did not know their personality types yet, a link to the website (16personalities.com) consisted of free personality identification questionnaire was given. After the participants identified their personality types and filled the general information, they were asked to respond to 20 likert-scaled items related to teaching technique preferences.

Quenk stated that MBTI instrument should not be classified as a test since the word test implies right and wrong answers, while the questionnaire used to identify MBTI-based personality normally consists of perception-based statements that have no right or wrong answers [8]. Thus, the questionnaire used in this study, as well as the one in 16personalities.com are not tests but only survey instruments to classify personality types and teaching preferences of EFL teachers.

In-depth online interview was also applied to get more understanding regarding teachers' perspective towards their personality and its correlation to the teaching style or techniques they frequently applied. The interview was done through online text messenger and consists of open-ended questions that allowed the participants to respond.

2.3 Data Analysis

This study integrated both quantitative and qualitative approaches to acquire its data. Kothari identified quantitative approach concerned in documenting characteristics that could be counted. Meanwhile, qualitative approach in a research study was commonly used to emphasize subjective assessment of certain perspective or assumption. In most cases, observation and interview were used in such research design Kothari [9].

The study used survey questionnaire and MBTI test in 16personalities.com to obtain quantitative data. The use of MBTI in this study was to identify the personality types of all English teachers who took part as samples. After the personality types of each teacher were classified, survey was conducted by giving questionnaire consisted close-ended likert-scale

items that would help in gathering information regarding EFL teachers' teaching preferences. Then responses of the given questionnaire were analyzed and checked with the traits of each personality based on MBTI charts and its mental functions. To determine if the items in the questionnaire were consistent in measuring the variables under investigation, the internal consistency of the items was measured through a correlation coefficient formula.

Frequency analysis was done to find out the percentage of different personality types from the total numbers of participants, and also to identify different responses from the scale of strongly disagree to strongly agree on each questionnaire item. Mode analysis was also conducted to find out the most personality types from the total numbers of participants, as well as the most answered responses from all questionnaire items.

To obtain qualitative data, in-depth interview had been done to some of the total English teachers participated in this study. The results of the interview were analyzed through Thematic Content Analysis to see the pattern of different personalities from the responses of each teacher during the interview.

3 Results and Discussion

After analyzing the responses of 75 (df: 75-2=73), English teachers as participants, the result of internal consistency measure shows that 17 out of 20 questionnaire items' validity are consistent and showing the correlation value that above the minimum standard (0.23). Meanwhile, the other 3 items are found to be inconsistent. Given below are the results of correlation coefficient measure using correlation formula.

Table 1. Internal Consistency of Questionnaire Items.

Q	r (73)	Validity
1	0.5	Valid
2	0.5	Valid
3	0.4	Valid
4	0.5	Valid
5	-0.03	Not Valid
6	0.1	Not Valid
7	0.4	Valid
8	0.5	Valid
9	0.4	Valid
10	0.23	Valid
11	0.6	Valid
12	0.4	Valid
13	-0.09	Not Valid
14	0.5	Valid
15	0.6	Valid
16	0.7	Valid
17	0.5	Valid
18	0.3	Valid
19	0.6	Valid
20	0.6	Valid

Based on the validity check results, it has been decided that the analysis would only involve the 17 valid questionnaire items. While the other 3 items, that are not valid, would be considered to be analyzed further for the needs of another research.

The data collected from Google Form Questionnaires showed that the 75 English teachers who participated to respond to the questionnaire items had varied MBTI-based personality types. 13 of them were identified as INFJ (17.3%), 10 others were ESFJ (13.3%), 9 teachers were ENFJ (12%), the other 8 were ENFP (10.7%), while there were 6 teachers classified as INTJ (8%). INTP (5.3%), INFP (5.3%), ISFP (5.3%) and ISFJ (5.3%) shared the same proportion with 4 teachers identified themselves as the types. There were 3 teachers classified as ENTJ (4%) and 3 more as ENTP (4%). There were 2 ISTJ (2.27%) and 2 ISTP (2.27%), while the rest of the types; ESTJ (1.3%), ESFP (1.3%), ESTP (1.3%), had only 1 representative each.

Due to the uneven number of each type, the data are analyzed by firstly dividing the responses of different type into 16 groups of data based on the Myers-Briggs Personality Types, then calculating the average value of each answer on the questionnaire items by each group of personalities. Although all types are mentioned, the analysis is focused on the personality types with at least 4 representatives (5% of total samples). Thus, the given analysis and discussion are focused on INFJ, ESFJ, ENFJ, ENFP, INTJ, INFP, INTP, ISFJ, and ISFP.

The responses from each group of personalities towards the questionnaire items are varied. Although some personality types share similar perspective regarding several teaching beliefs that was delivered as survey items in the questionnaire, multifarious responses are also dominant. Based on the responses of the English teachers with different personality types, the following set of data was found, and analyzed.

Table 2. Results of Questionnaire Responses Based on Each Personality Type.

MBTI	P	%	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
INFJ	13	17%	3,9	4,5	3,8	4,3	2,8	3,2	4,3	3,8	4,6	3,3	4,3	4,4	2,8	4,2	4,5	4,2	4,2	3,4	4,2	4,5
ESFJ	10	13%	4,3	4,0	4,3	4,1	3,4	2,6	4,4	4,3	4,3	2,6	3,6	4,0	2,5	3,5	4,4	4,6	4,3	3,5	4,4	4,6
ENFJ	9	12%	3,9	4,8	4,6	4,9	2,2	2,3	4,1	4,4	4,3	3,0	4,6	3,7	2,8	4,0	4,2	4,4	4,4	4,1	4,3	4,1
ENFP	8	11%	4,4	4,0	3,8	4,0	2,4	2,5	4,1	4,4	4,3	2,4	3,9	3,8	3,1	3,6	4,1	4,0	3,6	2,9	4,1	4,0
INTJ	6	8%	4,3	4,7	3,8	4,3	1,7	2,5	4,0	4,0	4,5	2,7	3,8	3,8	2,7	4,0	5,0	3,8	3,0	4,0	4,2	4,3
INFP	4	5%	4,3	3,5	4,0	4,5	2,3	2,5	3,3	3,8	3,3	3,8	4,5	3,0	2,8	4,0	4,3	4,3	4,0	3,0	2,5	4,3
INTP	4	5%	4,8	3,5	3,0	3,3	1,8	3,3	3,3	3,8	4,3	4,3	3,8	3,5	3,0	4,3	3,5	2,5	3,0	3,0	2,5	3,8
ISFJ	4	5%	4,3	4,0	3,3	3,8	2,3	2,8	4,5	2,5	3,3	3,0	4,5	3,8	3,5	3,8	4,0	3,8	3,5	2,8	3,8	4,5

ISFP	4	5%	4,8	4,5	4,5	3,8	2,8	2,8	4,8	4,0	4,0	4,0	2,8	4,5	3,0	4,3	4,8	3,5	3,3	3,5	4,5	4,5
ENTJ	3	4%	3,3	3,3	3,0	3,0	3,0	3,0	3,3	2,0	3,7	3,0	2,7	2,7	3,7	3,7	3,3	2,7	3,7	2,3	3,0	2,7
ENTP	3	4%	4,0	4,7	4,3	4,3	2,7	3,0	3,7	3,3	4,0	2,0	3,3	3,3	2,0	3,7	4,0	4,7	4,3	3,7	4,7	4,0
ISTJ	2	3%	4,5	4,5	3,0	4,5	2,0	4,0	4,5	2,5	4,0	2,5	4,5	4,5	4,5	4,5	5,0	5,0	5,0	4,5	5,0	5,0
ISTP	2	3%	3,0	5,0	4,5	3,0	2,0	2,0	4,0	2,5	4,0	2,0	3,0	4,0	3,0	3,5	4,5	3,0	3,5	3,5	4,0	5,0
ESFP	1	1%	4,0	4,0	2,0	4,0	2,0	1,0	5,0	5,0	4,0	5,0	5,0	4,0	4,0	5,0	4,0	4,0	4,0	2,0	2,0	4,0
ESTJ	1	1%	2,0	4,0	4,0	2,0	5,0	4,0	4,0	1,0	2,0	1,0	4,0	4,0	4,0	3,0	2,0	3,0	2,0	4,0	4,0	2,0
ESTP	1	1%	3,0	5,0	4,0	4,0	2,0	1,0	4,0	4,0	4,0	3,0	4,0	4,0	3,0	4,0	4,0	5,0	4,0	2,0	4,0	3,0

From the given table, it can be seen that the 75 participants have varied personality types with INFJ as the most dominant (17%) and ESFP, ESTJ, and ESTP with the least (1%). The responses to each questionnaire item have been calculated into average value of each type as it can be seen in column Q1 to Q20. Starting with the first questionnaire item, which is intended to identify teachers' preference in sharing trivial knowledge as pre-learning activity, the data show common perception where most teachers, except ISTP, ESTJ, and ESTP, tend to share trivial information to grab students' attention at the beginning of their classes.

For questionnaire item number 2, about engaging students to participate in early discussion before main lesson, only teachers with ENTJ as their personality type who prefer giving lecture and do not expect for responses from the students. Meanwhile, ENFJ and ESTP become the type with the most expectation towards students' responses among other types.

Preference in designing and applying language game is questioned in item number 3. The responses show some variations in teachers' perception. Most teachers agree that they like to apply language game to begin English class, while some teachers with INTP and ENTJ personality type tend to be neutral. One ESTJ teacher surprisingly dislikes the idea of using game in English class.

In classroom division, most teachers agreed to have small groups during some activities such as discussion or project. Meanwhile, 8 teachers do not like the idea of creating small groups when it comes to discussion or project making.

Although it was proven to be slightly not consistent, responses towards item number 5 show intriguing trend. Most teachers that participated in responding the questionnaire item have similar disagreement when coming to their versatility in adapting to the situation, and modifying their lesson plan. It is only ESTJ who states that he/she would stick to his/her original plan no matter what situation is being faced during the lesson. For item number 6, most

teachers disagree that having more lecture is more important than conducting class discussion. However, ISTJ and ESTJ against the dominant population, and believe that having conceptual explanation about certain theories is more essential.

Responses to item number 7 are generally coming to common belief that students are expected to be actively asking question and discuss after teachers explain some concepts. However, different perspective occurs in responses to item number 8 where teachers with ISFJ and ENTJ as their personality do not expect and try to avoid their students from having off topic discussion during English lesson, although the students actively use English. Almost all teachers who are classified as ENFP, INTJ and INFJ do not have any problem with off topic discussion.

Questionnaire item number 9 identifies teachers' preference in language correction. Most teachers agree that content and context of the language production is more important than the structure of the language produced by the students. However, a small percentage of English teachers believe that grammar checking is also essential. For item number 10, varied responses were gathered. Most personality types including ENFP, INTJ, ESFJ and ENTJ prefer to have planned power point slides or ready-to-use materials to be written on white board. However, some other teachers with other types of personality would like to use editable slides or open-ended material that can be modified during the lesson such as some empty slides.

Responses to item number 11 show common belief of English teachers in giving project-based assignment instead of theoretical exercises. It is only the minority population of teachers with ENTJ as their personality who believe that theoretical-based assignment is more effective. The next responses, addressed to item number 12, show that almost every type agrees to give production tasks such as writing and video making outside the regular class schedule. However, teachers that are classified as ENTJ, ISFP, and ENTP believe that it is not an issue to give production project during the lesson.

Number 13 is another invalid questionnaire item. However, the responses toward this statement regarding choice of topic and media are quite highly varied. The top five types; INFJ, ESFJ, ENFJ, ENFP, and INTJ (61% of the total participants) disagree with the statement that indicates their preferences in topic are mostly driven by personal perspective. However, the other types put their side on neutral, or even agree, although none of them choose strongly agree. Responses to item number 14 show quite similar agreement among the teachers with different personality types. They believe that sharing resourceful material in the internet is necessary.

Responses to item number 15 also indicates beliefs of most teachers regarding language production that is not only based on test results, but also can be seen throughout the process of learning, as well as informal interactions among peers in the classroom. Only teachers with the personality types of INTP, ENTJ, and ESTJ put neutral as their overall perspective.

Responses to item number 16 and 17, which talk about media usage such as videos, and also animated graphic show that almost all types prefer to include such interactive modality except some teachers with INTP, ESTJ and ENTJ personalities. Meanwhile, responses towards item number 18, 19, and 20, which are intended to see teachers' perspective in managing the class, show some varied feedbacks. Apart from the majority, some teachers who are classified as ENFP, INTP, INFP and ISFJ prefer to not roam around the class after assignment or task is given. However, ENFP and INTP still quietly observe the performance of the students, and the process during the task, while ISFJ, along with INFP, are most likely to be idle and wait from afar. The other types believe that active observation and roaming around the class are important part of lesson while the students are doing task.

3.1 Responses towards Interview

Due to the recent limitation in meeting people and the policy of social distancing, some teachers who participated in responding to the questionnaire were interviewed towards online messenger. The interviewed teachers are 2 INFJ, 2 ENFP, 1 INTJ, 1 ISFJ and 1 INTP. They were asked questions regarding their personal beliefs that are related to their personality types, in relation to their profession as teacher who have experience in teaching at senior high school level.

The answers of teachers from different personality groups show some significant differences in their belief, while teachers with similar type tend to share common thought regarding several beliefs in EFL teaching. For instance, the 2 INFJ, ISFJ and the INTJ teacher prefer obedient group of students who attentively listening, instead of the highly critical group of students that have probability of actively ask and argue. Apart from their prior belief, teachers under the personality of INFJ, INTP, and INTJ tend to expect their students to be cooperative and obedient, but at the same time, do not mind having intense discussion with the students whenever needed. On the other hand, ENFP, and INTP demand the students to be more versatile and critical. They do not like passive and overly obedient students as it will limit their choices of strategies during the lesson. ISFJ, surprisingly, may adapt to any situation although they prefer the obedient and cooperative one.

Further responses show that different teachers have their personal preference in the type of students they would like to teach and the ones they find difficult to handle in the classroom. INFJ and INTJ tend to avoid ENTP and expect to have ESFP, and other introverted types such as ISFJ, ISTP, and INFP. Meanwhile, teachers with the personality of ENFP do not expect ISFJ in their class, and prefer to teach a group consists of INFJ, INFP, ENFP, and ESTP. Overall, they find MBTI interesting and useful in identifying their own characteristics, as well as their students, and other teachers as their colleagues.

4 Conclusion and Recommendation

Based on the findings and discussions, it can be concluded that MBTI play a significant role in driving English teachers' perception and beliefs about EFL teaching. However, it can also be seen that different teachers who are classified in different personality types may have some common beliefs when it comes to something general as it has been analyzed above.

As the field of personality types and EFL teaching is still very broad, further research needs to be done to discover new findings related to the particular field. Some possible studies to be conducted ahead include the case study to discover deeper correlations among EFL teaching and each personality type, or the study that analyzed personality types influences in EFL learners.

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The Formation of New Social Capital and Civic Engagement in Society 5.0 Viewed from Digital Citizenship Education

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Abstract. Entering the era of the industrial revolution 4.0, all areas of life are driven by technology and information. The impact of the industrial revolution 4.0 on the development of human interaction according to technological developments towards the era of society 5.0. This article discusses the concept of new social capital and civic engagement among residents of Kampung Cyber from the perspective of digital citizenship education. The method used in this research is qualitative descriptive analysis, data collection through interviews, observation, and literature study based on purposive sampling and snowball sampling techniques. The results of the study show that new social capital makes the internet a place to socialize. The internet is able to provide space for social capital in the post-modern era or it can be said as new social capital so that the internet also creates new types of social interaction and citizenship in society. This research is a form of Citizenship Education in the socio-cultural realm, that residents of Kampung Cyber in the existing reality through story experiences that are interwoven between user citizens and technology are online movements, entrepreneurship, volunteerism, and the economy so as to produce a process of forming civic engagement in the reality of society. cyberspace. These findings are particularly relevant for understanding the relationship between educational competence and digital citizenship.

Keywords: Social Capital, Civic Engagement, Digital Citzenship.

1. Introduction

In the era of the Industrial Revolution 4.0, each individual can easily build networks with other individuals without being limited by space and time. The internet, a product of advances in technology and information, has changed the pattern of human social interaction from face to face to community 5.0 mediated by devices. The concept of society 5.0 is not only limited to manufacturing factors but also solves social problems with the help of the integration of physical and virtual spaces [1]. The concept of society 5.0 is an answer to problems with the aim of justice, equity, and common prosperity so as to create a supersmart society [2]. Technology era society 5.0 creates a new value that will eliminate social gaps, age, gender, language and provide products and services that are specially tailored to the diverse needs of individuals and the needs of many people.

Cyber society is a term for internet users who actively interact, transact, search for information, or other activities online. The term cybersocial reality is an online life that can be analyzed with a sociological approach regarding its social structure and relations [3]. From Gotved's view, cybersocial can be formed from the participation of individuals or groups who carry out their activities continuously online so as to form patterns, actions and also the meaning of their actions.

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The study of the era of the industrial revolution 4.0 which is considered to have the potential to degrade the role of humans gave birth to a concept, namely society 5.0. Through this concept, it is hoped that artificial intelligence will transform big data collected through the internet in all areas of life into a new wisdom, with the hope of increasing human capacity in opening up opportunities for humans. The realization of society 5.0 aims to create a society where it can solve various social challenges by incorporating innovations in the industrial revolution 4.0, thus resulting in the formation of new social capital.

Online interactions can increase social capital be it bonding or bridging. However, there are two contradictory ideas regarding the impact of the internet on the individual social capital of its users. On the one hand, the internet allows individuals to expand their social networks thereby increasing social networks (Facebook which allows one to make friends with thousands of people). But on the other hand, the internet also complements the social environment around it so that the level of social capital ties in the offline environment can be reduced.

Putnam states that one of the ways to promote social capital is a neighborhood network, which is social engagement. This neighborly relationship can be in the form of mutual visits between friends and neighbors, social participation in the form of activities in public spaces such as meetings at recitation, social gathering, neighborhood association meetings and so on. The concept of social capital is very broad, covering issues of poverty alleviation, community development and the involvement of young citizens [4]. This active citizen involvement is an effort to improve the quality of life of the community both through political and non-political processes [5]. Besides being inclusive, social capital can also be exclusive at a certain level, thus becoming a barrier for members of the community outside the group to join and participate. Utilization of the existence of social capital in society has an influence on economic growth, health, education, welfare, government and governance

Formation The new social capital for the people of Kampung Cyber has the potential to be a good tool for Citizenship Education and to cultivate it in the aspect of civic engagement. In a social context, the era of digital citizenship requires citizens to be able to work and interact with other people in various circumstances and contexts. Citizens in the digital age must be able to engage in public debate and discussion, participate in community life, address problems and problems, direct them to treat others with respect whose ideas and values differ from their own.

2. Methods

The research method chosen is a qualitative method. Qualitative research examines participants' perspectives with interactive and flexible strategies. Qualitative research is aimed at understanding social phenomena from the participant's point of view. Thus qualitative research is research that is used to examine the conditions of natural objects where the researcher is the key instrument. The research location chosen was Kampung Cyber which is located at Taman KT I / 434, Patehan, Kraton District, Yogyakarta City, on the grounds that Kampung Cyber is one of the communities that has goals related to formation of new social capital in society 5.0. In this study, using field observation techniques, interviewing several informants in Kampung Cyber who were selected based on purposive sampling and snowball sampling techniques, including village administrators and several communities there. Interviews were conducted with several residents neighborhood association 36 and neighborhood association 36 administrators, direct observation of neighborhood association 36 community activities and literature study of literature discussing social capital, civic engagement and digital citizenship.

In addition, this study uses literacy study methods as a complement to data. The validity test of the data used in this study used triangulation of sources. The qualitative data analysis that the researcher will use is based on the Miles and Huberman model [6] which consists of three activities, namely data reduction, data presentation, and drawing conclusions.

3. Result and Discussion

3.1 Establishment of New Social Capital and Civic Engagement of the Kampung Cyber Community

The growth of the internet with the presence of social media now has an impact on social capital, the existence of social media has opened new networks that offer so many opportunities. The internet is a technology product that is widely used by the community, the internet also raises new types of social interaction in society [7]. The benefits of online media can also provide additional income levels for economic actors in growing social capital with online communities, the presence of the internet has developed social capital in enriching human connections and networks [8].

Social capital is a set of informal values or norms that spread among group members that allow cooperation between them [9]. This cooperation occurs when members of the community meet mutual expectations. Social capital is also said to be the root of change hidden behind something [10].

Social capital in the online world can occur as a tendency for people to exchange information between individuals and groups, even in the online world social capital has a very strong level because usually in a community there will be activities that are usually planned [7]. In its development, social capital is dealing with the 4.0 industrial revolution. Therefore, social capital also experiences dynamics, so that their social capital also evolves with time. One of them manifested in the world of the internet. This is what is meant by new social capital.

The Kampung Cyber Program, which is also the neighborhood association 36 work program, has the goal of building neighborhood association 36 into an internet-based area. This Kampung Cyber is like a merger between the virtual community and the real community, because in real life they live together and in virtual life they form the same community. The majority of Kampung Cyber communities have private internet media access which is placed in their respective homes, so that individuals feel free to establish and do activities using the internet media. This effort in building the citizens' mindset to be technology literate is dominated by the awareness that appears subjectively, where the development of this cyber village is carried out independently by local villagers.

Efforts to form a cyber society carried out by citizens place social capital in every process, from planning, development to supervision. The implementation of social capital in the development of the cyber community is carried out in every aspect making Kampung Cyber an ideal example of the existence of cyber communities elsewhere. That way, Kampung Cyber can be an example for all parties who want to optimize the functions of the internet and social media, especially optimizing the function of social media in the realm of groups.

Social capital can function properly, of course, if the elements of social capital can be fulfilled. Three main elements, such as networks, norms, exchange and trust [11]. It is strengthened by the assumption from Francis Fukuyama that trust is the most important part of social capital or the main source that will determine whether social capital will be strong or

weak [2]. If you look at the success of empowering the Kampung Cyber program on their lives, it can be assumed that there is a strong trust as social capital owned by residents of Kampung Cyber in the social life of the community. Trust in question is the public's trust in the initiator of the Kampung Cyber Program to make changes through various development efforts.

The social network among the residents of Kampung Cyber is formed between residents. As a community with a limited environmental background, not much effort can be made with people from outside the village, including to build networks. The community, who are mostly workers, do not have many opportunities to make exchanges with the outside world, especially with their limited education. The source of the existing network in Kampung Cyber comes from neighborhood association administrators. Neighborhood association administrators acts as a figure who has a wider social network than the village community. With the network they have, the neighborhood association administrators holds an important position in every Cyber Village program, namely as an idea originator and as an implementer of development.

An example of the success of building an internet network in Kampung Cyber is due to the support and cooperation between the neighborhood association administrators and those who understand the internet and the private sector. The social network owned by the neighborhood association management plays an important role in implementing the internet in Kampung Cyber, such as as a provider of suggestions or ideas, as a provider of tools and as a network management after the installation of the internet. With the development of internet access, Kampung Cyber has completely received the title as a progressive village in carrying out development. Currently the existence of the network in Kampung Cyber is getting wider with the recognition of Kampung Cyber as an internet village.

The City Government through the Koperasi and UMKM Office supports the village internet movement in Kampung Cyber by providing assistance in introducing Kampung Cyber products at every exhibition. With the recognition from the government, it is also a sign that Kampung Cyber has got a new network through a form of trust given by the government. Apart from the government, there are many parties who personally come to Kampung Cyber, especially academics who want to do studies or research. This situation makes Kampung Cyber stronger with the network it has.

Although it has its own characteristics as a traditional community group, there is also a tendency for other types of social capital. Currently, the people of Kampung Cyber tend to move towards a bridging typology. Bridging social capital has several principles that differentiate it from other typologies of social capital. The principles of bridging social capital are like that every member in a group has the same rights and obligations, each group decision is taken on the basis of an agreement with group members, while group leaders only carry out the results of group decisions [12]. From the existing principles, the type of social capital bridging refers to a society that recognizes the freedom of speech of each individual, recognizes human rights, deserves to be upheld and respected. Although social capital is part of community property, in this case social capital cannot be generalized to the behavior of the individual there [13]. This means that not all people in Kampung Cyber behave and take advantage of social capital as part of common property.

The Internet has provided new political information venues, sites for discussion, and networks for mobilization. Despite dire predictions by some that politics online would increasingly fragment the sense of political community or accelerate the decline in social capital [14], we find that internet use actually increases civic engagement. The results, civic engagement indicate that political information and communication online have visible collective benefits for society as well. Jefferson’s republican ideal of civic virtue requires a knowledgeable citizenry, deliberative democracy through the frequent discussion of politics, and civic duty.

Voting, though it is merely one form of participation, has a special place in a democratic society as the ultimate exercise of the rights and responsibilities of citizens. Civic engagement implies long-term changes in democratic participation, beyond involvement in any particular election. In an age where participation and civic engagement have been steadily declining, the internet may hold promise for renewing republican traditions of citizenship. Current and future benefits for more widespread information and mobilization are encouraging, especially given the greater use and political knowledge for young people online. In this capacity, the regular and effective use of the Internet is a potentially democratizing resource

3.2 Kampung Cyber Program in Digital Citizenship Perspective

The aspects of skills developed to equip citizens in the 5.0 society era include civic literacy, global citizenship, digital citizenship. First, civic literacy is focused on the knowledge and abilities of citizens in overcoming problems in social, economic, political and cultural contexts including how to solve social problems.

Second, global citizenship is a series of efforts to prepare citizens to have the ability to communicate and collaborate in relation to interactions between different cultures, sufficient basic knowledge related to aspects of geography, politics, economics, and science and the ability to understand problems and act with knowledge in an interdisciplinary manner and multidisciplinary.

The third aspect is digital citizenship through an understanding of security using the internet, knowing the internet, knowing how to find organize and create digital content, understanding how to play a role in increasing responsibility in intercultural interactions, and understanding the rights and obligations of using internet media. The third aspect becomes important and more urgent because the internet media is an entry point for applying civic literacy to a global world or global citizenship.

Kampung Cyber describes digital literacy efforts and the use of information and communication technology by residents for their daily lives, including improving their economy without intervention from the government or other stakeholders. Digital citizenship is the application of norms for the productive and appropriate use of technology that is relevant to today's technology-rich society and must be an integral part of technology education [15]. Digital citizenshiphas nine main elements to explain the use of technology in the digital age. These elements are categorized as digital access, digital commerce, digital communication, digital literacy, digital ettiqutte, digital law, digital rights and responsibilities, digital health and wellness, and digital security [16].

Implementation digital citizenship in Kampung Cyber, the emphasis is on the use of digital technology tools to support people's lives. Formationdigital citizenship done by fulfilling access to technology, access to health and security.

Table 1 : Element Digital Citizenship in Civic Engagement of Kampung Cyber

Element	Indicator
Digital access	With the existence of an optical cyber network in every resident's house, the residents of Kampung Cyber can access information more easily. This is further developed with the presence of "SiWarga", administrative services are carried out through an online mechanism and provide information about the identity of residents and village news at any time.

Digital health and wellness	The application "SiWarga" provides information on the blood groups of 151 residents. So that if someone experiences a shortage of blood due to an accident, the residents or neighborhood association administrators can ask residents with the same blood to donate blood.
Digital security.	Since 2017, residents of Kampung Cyber can see spaces or places across the village with CCTV. All residents can access the CCTV cameras. With the existence of CCTV, it is an effort to provide security for the community and anticipate crimes such as theft, etc.

Building digital citizenship, Citizenship Education emphasizes the development of citizens to have the attitude and willingness to interact with fellow citizens both in the community and cyberspace by always maintaining human dignity by having an attitude of sympathy and respect. Respect here is defined as a person's ability to be able to protect himself so as not to harm others. Citizenship Education learning in schools and colleges emphasizes the theoretical aspects of citizens and government as well as the relationship between citizens and citizens and citizens to the government. However, along with its development, there was an expansion of the meaning of Civics that went beyond the government mechanism by incorporating public welfare into it. Considering that the coverage of Citizenship Education is not only in school, but also exists and must live in the community (socio-cultural). Kampung Cyber program has the potential to be a good tool for civic education and to cultivate it in the civic engagement aspect. Kampung Cyber platform can add real understanding, with knowledge based on actual conditions in the field and then proceed with the hope that it can answer community needs, and involve collaboration between the community and the campus (school).

This research took place in Patehan Village, Yogyakarta City, where the main object of study was the Kampung Cyber Program. We can detect that online movement, entrepreneurship, volunteerism and economics are integrated into the Kampung Cyber Program. These things are civic engagement support if we refer to Jacoby's opinion again [17], this includes a wide range of activities, including developing civic sensitivity, participation in building civic society, and benefiting the common good. On the social side, the Kampung Cyber Program refers to actions to solve problems that exist in society and bring change to them.

The new social capital and civic engagement of the citizens of Kampung Cyber when viewed from the Republican Citizenship theory, republican citizenship emphasizes civic bonds which are different from individual bonds (liberal tradition) or group ties (communitarian tradition) [18]. While liberal citizenship emphasizes rights, republican citizenship emphasizes the obligations of citizens. In republican citizenship, individual freedom lies in the guarantee of state security which is under the rule of law and the kindness of these citizens in giving participation. So from the republican tradition, citizenship has ethical and legal dimensions. The legal status of each citizen is closely related to the ownership of privileges regarding rights and obligations towards the common interest or the public interest. Therefore, republican citizenship requires an active commitment in public affairs.

The communication process with residents is carried out through village deliberation media in a language that is easy to understand considering the low human resources of Kampung Cyber residents, so that from this process the residents understand the implementation of Kampung Cyber, and can be well received, therefore the residents are very supportive and show enthusiastic attitude. In its development until now, also socialization to the community and personal learning. To expand the transmission of information about the existence of cyber

networks and their use, it is formed naturally through the media and routine forums that take place in the community.

The successful implementation of Kampung Cyber is also due to a good bureaucratic structure. In this case, there is a specialization in the division of tasks and authorities according to the competence that knows cyber problems neighborhood association 36 administrators who are very open, responsive, and oriented towards mutual consensus, thus creating good community participation. The establishment of Kampung Cyber was also motivated by complaints, ideas and criticism from the community, especially youth. In addition, it is also inseparable from the direct chain of relationships (chair of chomand) without any dividing boundaries between citizens, and levels of government above them, so that when cyber networks encounter obstacles, they can immediately ask for help from those who understand technology.

Despite the disparities in Internet use, there is cause for optimism. The rate at which individuals view political information online has been rising and continues to increase, especially for the young. The impact of digital citizenship is most profound for young people. The young a demographic group with the lowest civic and political participation have the highest probability of seeking online political news and becoming active in politics online. Because the young are more likely to have technology access and use online news [16], the consequences for the sustained engagement of future generations are significant.

This part revealed important evidence (measured with an interaction term) that online news may be especially beneficial for the young, related to increased political sophistication among this age group, and perhaps more permanent changes in civic engagement for the future. civic engagement provides a foundation for participation, based on an attachment to the political community, as envisioned by civic republicans. The next chapter addresses different forms of political communication on the Internet, to find out whether or how they can translate civic engagement into political participation.

4. Conclusion

The growth of the internet with the presence of social media nowadays has an impact on social capital, the existence of the internet has opened up new networks that offer so many opportunities. Technology can help people to build contacts and value into ourselves and technology has occupied a central position in social space which opens up wide opportunities for separate elements, so that new social capital is social capital that utilizes virtual social which makes the internet a place to socialize.

In the era of digital citizenship, efforts to respond to changes in global society and the challenges that accompany it by revitalizing Citizenship Education by preparing students to have economic competition, complex work productivity, global security, and the development of internet media are very crucial for the sustainability of democracy.

The authors found that educational attainment is related to the amount of time that people spend online, and that it is a stronger predictor of internet involvement in nonentertainment activities than variables such as race, ethnicity, or income. Controlling for other factors, education, years online, and youth are significantly associated with using the internet to enhance human capital (visiting web sites involving school, work, health, finances, or science) or social capital (visiting sites related to news, government, or politics). These findings are especially relevant for understanding the link between educational competencies and digital citizenship.

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Analysis of The Exemplary of Buya Ahmad Rasyid Sutan Mansur as Enrichment in History Learning at SMA Muhammadiyah 3 Surakarta

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Abstract. The purpose of this study to analyze the exemplary of Buya Ahmad Rasyid Sutan Mansur as enrichment in history learning at SMA Muhammadiyah 3 Surakarta. This study uses a qualitative method with a Discourse Analysis approach. Data obtained through observation, interviews, documentation, with interactive analysis by Milles and Huberman. The results of this study indicate: (1.) Buya Ahmad Rasyid Sutan Mansur has 5 exemplary values including: Religious Values, Nationalism, Leadership and Struggle, Firmness of Establishment. (2.) Implementation of Historical Learning Based on the example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta has been running well and effectively, during Covid 19 through Google Classroom learning, teachers have referred to the 2013 Curriculum and compiled learning tools consisting of a syllabus, lesson plans. (3.) Teachers' Obstacles in Implementing History Learning at SMA Muhammadiyah 3 Surakarta, namely inadequate learning resources, too short learning time, and lack of student activity.

Keywords: Analysis, Exemplary, Buya A. R. Sutan Mansur, Enrichment, Learning History.

1 Introduction

Learning history is an effort that has been prepared by the teacher to be able to apply both knowledge, attitudes, and values related to a change and growth of ancient society to the Contemporary era in students should be applied in their lives. Historical learning not only provides historical knowledge related to facts, but historical learning can generate understanding and gain dignity from a historical event, historical knowledge is needed for all people from an early age so that they know and understand the meaning of a past event that can be used as a basis for acting and being able to see the reality at a later date, the need for history to be studied early on by each person, both formally and informally [1].

Historical learning has an important role in the process of actualizing the two elements of the learning process and education both (intellectual education and national moral education [2], so that educators must upgrade (improve) their professional competence, knowledge, beliefs, and teaching practices that are able to facilitate students to improve self-regulated-Thus, learning will increase [3]. In the process of actualization, historical awareness in learning can be found through an effort (a) to appreciate the importance of present and future history (b) be able to recognize himself and his nation (c) history in cultural fostering and nation (d) care for and preserve the nation's historical heritage [4], history learning plays a very important role in

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character building students The formation of character is expected so that students can someday become citizens who believe in God Almighty, have an attitude of nationalism and love for the country, apart from that, history learning in high school in the 2013 curriculum has been regulated and has a clear function and purpose, namely forming Indonesian human character to have a sense of nationality and love the country.

In shaping the character of students, history learning given at school is required to be able to make students as close to society as possible, because the history taught and the values contained in it are taken from a historical event that occurred in society. So history learning can be used as a means to maintain the identity and character of the nation. In fulfilling this goal, history learning based on local historical values can be used as an alternative solution. Therefore it is necessary to strengthen society in responding to global change through history and character-building requires a best practice of exemplary values contained in history learning, through historical learning exemplary values can be internalized to students [5].

In the context of history learning, the history learning design designed by educators must be able to facilitate students in making meaning from historical events [6], because history learning can develop various basic potentials of students in the values of wisdom, character and personality [7]. The ideal history learning facilitates students to achieve learning goals optimally [8]. Education must design innovative learning so that it can optimize students' abilities to be more competent [9]. innovative and creative history learning, in addition to increasing the professionalism of educators and developing student competencies related to historical material. That way, it is only natural in history learning to be introduced about exemplary values in local history to every student.

The development of technology and information influences all lines of life, although initially these developments were felt in institutions operating in the economic sector (companies). However, the Industrial Revolution 4.0 has had an impact not only on new approaches but on methodology and technology which in its development affects various fields of science, therefore it is time to be introduced to the community, especially academics [10].

The skills that students should have in the 21st century As stated by Griffin, P & Mc Gaw including, first, creativity, innovation, critical thinking, and the ability to solve problems, the ability to make decisions, and the ability to control cognitive aspects [11]. Second, namely, communication and cooperation skills. Third, namely, technology and information. Fourth, namely, being able to become good citizens of society, having personal and social responsibilities, and having awareness and having cultural competence. The existence of these skills is a requirement in learning history. Educators as agents of chang learning history learn a lot about past events, students will not be able to build their knowledge of historical events that are only told by educators e must be able to keep up with technological developments, as well as design creative and innovative learning [12], learning history learns a lot about past events, students will not be able to build their knowledge of historical events that are only told by educators [13], steps to build student abilities are by presenting historical events in the past so that students can appreciate and interpret them [14].

Related to the opinion expressed by Griffin, P & Mc Gaw, above, historical learning about the analysis of Buya Ahmad Rasyid Sutan Mansur's example is needed to build various skills that are needed by students in the 21st century, because in the history learning process related to the analysis of Buya Ahmad's example Rasyid Sutan Mansur can be a forum for developing creativity, innovation, critical thinking, the ability to solve problems, communication and collaboration skills, information literacy skills, information technology utilization skills and student communication skills, besides learning about the exemplary analysis of Buya Ahmad Rasyid Sutan Mansur, is very rich in exemplary values that can shape students into good citizens

[15]. The exemplary values that Buya Ahmad Rasyid Sutan Mansur has, namely Religious, Nationalism, Leadership and Struggle and very high determination, these values are very important to be emulated and possessed by students today, and these values are very much needed in In the 21st century today, armed with religious values, nationalism values, leadership and struggle values as well as students' very high values of persistence, it will form a generation that has a strong character and becomes a strong personality. Students will become figures who work hard, never give up, and are full of independence in facing and answering the various challenges and obstacles that arise in the 21st century, with these values students will dedicate all the abilities that exist in themselves for the progress of the nation and state in the current era of globalization.

The existence of Muhammadiyah schools will certainly make it easier to instill exemplary and Muhammadiyah values. SMA Muhammadiyah 3 Surakarta as one of the Muhammadiyah schools has of course implemented Islamic character values in the learning process through the school's vision and mission in realizing students with Islamic character, but there are still some students who have bad behavior, such as laziness in learning, students' lack of interest in learning, lack of discipline in carrying out prayers, lack of respect for speaking partners, and being impolite to friends and even teachers, and others. With the exemplary values of a figure who influences local or national history, especially in Muhammadiyah, it is expected that students can instill exemplary character in history learning in students as provisions in their daily lives, both at school and in the community [16]. Through exemplary and role models, he is able to form a good personality and is beneficial for his life, both from the school environment, family, and society [17].

2 Research methods

In this study, the researcher uses qualitative methods, qualitative research, which is a scientific approach that describes certain social situations that describe reality correctly, which is formed by words based on techniques for collecting analysis of relevant data obtained from natural situations [18]. With a Discourse Analysis approach using a Single Stylized Case Study Strategy. Data were collected through observation, in-depth interviews, and documentation study, with interactive analysis by Milles and Huberman [19].

3 Results and Discussion

3.1 Identification of Buya Ahmad Rasyid Sutan Mansur's Exemplary Values As Enrichment In History Learning At SMA Muhammadiyah 3 Surakarta

Buya Ahmad Rasyid Sutan Mansur's struggle in the trajectory of Indonesian history holds a lot of very relevant character values that can be imitated by the younger generation of students at this time. The identification of exemplary values owned by Buya Ahmad Rasyid Sutan Mansur includes Religious Values, Nationalism values, Leadership and Struggle, a very high stance, realizing each goal is full of challenges and obstacles, some even told him that Muhammadiyah people are Phanatic. To be a role model, of course, a character must have an advantage compared to others because an exemplary figure can increase the confidence of the community or students in the school environment to their example in carrying out the mandate [20].

As we can see that in the current implementation of National education, it tends to be practical-pragmatic and does not pay close attention to fundamental events such as the whole Indonesian people, therefore, it is necessary to express improvements in the quality of human personality and character. This is in line with the goals of education that are stated in Law no. 20 of 2003. Which is currently being intensified by the government, especially through educational institutions, one of the values that are still relevant in addressing the problems of the Industrial era 4.0 is the Identification of Exemplary Values of Buya Ahmad Rasyid Sutan Mansur as enrichment in learning History at SMA Muhammadiyah 3 Surakarta.

Understanding of the Identification of Buya Ahmad Rasyid Sutan Mansur's Exemplary Values as Enrichment in History Learning at SMA Muhammadiyah 3 Surakarta, can be realized through the school's goals, vision, and mission. Which is the task of the school is to foster the vision and mission related to the exemplary values of Buya Ahmad Rasyid Sutan Mansur as enrichment in history learning implemented at SMA Muhammadiyah 3 Surakarta. As according to Agus Wibowo, revealed that the school has a strong obligation to regulate, become a driving force, and harmonize all existing educational resources [21]. The school principal is one of the aspects that can advance the school to realize the vision, mission, goals, and objectives of the school through activities that are carried out on purpose.

In history learning, values through figures are much more important, such as the identification of Buya Ahmad Rasyid Sutan Mansur's exemplary values as enrichment in history learning at SMA Muhammadiyah 3 Surakarta, which can provide a new perspective on historical values in the explanation of the character Buya Ahmad Rasyid Sutan Mansur. The study of figures as one of the intellectual historical heritage has an important role in the process of absorbing historical values, both from pioneering, exemplary, cultural, and social identities of historical figures. The importance of this historical value is that the character in the historical context finds several portions in historical learning. In history learning, the enrichment material that is studied has the value that the material studied by students in learning is no longer limited to historical events. where the 2013 Curriculum approach which is based on competence is a reference in learning history. This means that the thought of the 2013 Curriculum needs to be interpreted in the form of learning. Therefore, learning should be based on competency learning and not only learning the content of historical events where the content of historical events is a starting point in developing competence but considering that historical learning is a vehicle for the development of national life, therefore the content of historical events is very important to be expanded in historical material.

Identification of Buya Ahmad Rasyid Sutan Mansur's Exemplary Values as Enrichment in History Learning at SMA Muhammadiyah 3 Surakarta, is expected to be internalized as enrichment in students so that it can provide an understanding that eventually becomes a commonality and is expected to be applied to everyday life both in inside and outside the school environment, which grows through continuous history learning from an early age. Learning from history or studies related to the past should not be underestimated and considered unable to answer the problems that exist in the present era, in fact, the millennial generation (now) is experiencing moral degradation (decline), one of the causes is because it does not learn from history.The exemplary crisis has become a worrying epidemic in Indonesia, where the younger generation tends to actualize shows that are not worthy of being demanded, while demands are merely a spectacle. The hope is that history learning which has a value orientation can be used as a philosophical basis for the function of education [22]. Education as a cultural transformation means planting historical values from previous generations to the present generation. So that history finds an urgent position as one of the learning values in education, in fact, this is less attention and contrary to the conditions of historical learning, while historical values are needed

in the inheritance of previous values in history learning, one of which is the Identification of the Exemplary Values of Buya Ahmad Rasyid Sutan Mansur as Enrichment in History Learning at SMA Muhammadiyah 3 Surakarta [23].

History is a continuous dialogue in a period divided into three perspectives, namely the past, present, and future. Buya Ahmad Rasyid Sutan Mansur is a figure from the past, but his role in the Indonesian nation can still be felt today. It can be seen from the movements of his steps, actions, attitudes, and struggles so that they can become a source of enthusiasm and role models for the younger generation, especially students. The study on the Identification of Buya Ahmad Rasyid Sutan Mansur's Exemplary Values as Enrichment in History Learning at SMA Muhammadiyah 3 Surakarta can be presented and inserted as material for enriching Indonesian History in class XI even semester which is contained in KD 3.6 Analyzing the Role of National and Regional Figures in Fighting for Indonesian Independence. Studies on the Identification of Buya Ahmad Rasyid Sutan Mansur's Exemplary Values as Enrichment in History Learning at SMA Muhammadiyah 3 Surakarta, from a historical perspective it is expected to foster Religious Values, Nationalism Values, Leadership and Struggle values as well as the value of Solid Establishment in students. So that in history subjects it becomes more meaningful by highlighting the character values contained in it, so that students can foster exemplary values such as Religious Values, Nationalism Values, Leadership and Struggle and very high values of Teguh Establishment, one of which is by exemplary method, namely having a role model or role model that can be used as an example by students.

3.2 Implementation of History Learning Rests on the Example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta

Learning implementation that implements historical learning based on the example of Buya Ahmad Rasyid Sutan Mansur is a follow-up to the planning process that has been compiled by the teacher in the form of a Learning Implementation Plan (RPP). The learning device must contain the values that will be implemented to students when the learning process takes place. The implementation of history learning based on the example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta is not only limited to planning but must be practiced in history learning, to implement these values can pass the method that will be used in the teaching and learning process. Implementation of Historical Learning Rests on the example of Buya Ahmad Rasyid Sutan Mansur has not been written into the RPP, but it has been applied in history learning very well because the stages that are no less important in learning are the implementation process and the implications of the planning. Efforts to transform the example of Buya Ahmad Rasyid Sutan Mansur, are implemented through history lessons carried out at schools. Implementation is a process related to implementation, ideas, concepts, policies, or innovation inefficient actions, which affects the form of transformation of knowledge, skills, and attitude values, while history is a branch of science that examines the origin and growth and role of society in the past. then based on certain methods and methodologies in which history means science that seeks to find, reveal, and understand the cultural values and meanings contained in past events [24].

The implementation of history learning based on the example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta which was carried out by the history subject teacher at SMA Muhammadiyah 3 Surakarta in Class XI referred to KD. 3.6 Analyzing the Role of National and Regional Figures in Fighting for Indonesian Independence. Which learning planning is a form of a process in deciding the results of thinking rationally (makes sense) regarding specific learning targets and objectives, which refers to changes in behavior patterns and a series of activities that must be carried out as a solution in achieving these goals using

all existing learning capabilities and resources [25]. The results of this process are structured documents that can be used as a reference and guidelines for the implementation of learning activities in the future, in carrying out learning planning, one must look at opinions that can lead to a goal to be achieved. In carrying out better lesson planning, the process of implementing historical learning based on the example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta which was carried out during the Covid-19 Pandemic through Google Classroom could run well too, systematically and directed, in line with the opinion that was held stated by Muhammad Qasim Maskiah in his writing "Planning for Teaching in Learning Activities" in the Islamic Discourse Journal (2016) states that teaching planning is a stage in the learning process to try as much as possible so that teaching is successful. One aspect that can bring success is that teachers always make lesson plans beforehand, teaching planning is a program of how to teach what is stated in the 2013 Curriculum, in learning activities alluding to three domains, namely, attitudes, knowledge, and skills through results learning to be achieved to produce productive, creative, innovative, and affective students through strengthening attitudes, skills and knowledge that have been integrated [26].

In planning the history teacher has prepared a learning tool in the form of a Learning Implementation Plan (RPP). And closing activities. Basic Competencies that have been planned in the RPP by Ibuk Indah Rahmawati Akbar, S. Pd, as a history teacher, carry out learning at two meetings where the time allocation is 2x45 minutes or 90 minutes, Ibuk Indah Rahmawati makes the best use of her teaching time and hours through Google Classroom, so this is where the important role of the teacher in time management and managing learning [27].

Given the importance of learning history in an educational context, it must contribute to the formation of character and self-identity. What is the orientation in the development of history subjects in the world, for the realization of individual nations who have high integrity and are aware of the development of the nation [28], inline with this history teacher Ibuk Indah Rahmawati Akbar, S. Pd., Stated that learning history is the same as building us. the future, because by studying history we are expected not to repeat mistakes that occurred in the past, history itself has a lot of value that can be reaped and can be applied in life as long as we study it well. Implementation of History Learning Rests on the example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta is not only neatly stored in books but with historical learning, exemplary values and thoughts can be used and transferred to students [29].

The implementation of learning is the teacher's obligation in cultivating all the abilities that exist in students, the main course in the history learning process needs to change student behavior based on the goals formulated by the teacher at the beginning of the process of history learning activities taking place, the teacher as a catalyst means that the teacher plays a role in helping students to get the strengths, talents (talents), and the advantages that exist in them, the teacher acts as a guide, helps direct and develop aspects of the personality, character, and emotions, intellectual (scientific) aspects of students, so that students can understand that the correct learning process is a process that is continuous [30].

Because it requires an innovation that can boost historical achievement and student interest in learning history. This opportunity for the author is very relevant when implementing historical learning based on the example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta as a solution to this. Seeing that the function of learning history is very important for the nation's future generations, it requires learning innovations that are following current conditions [31]. The demand for the need for historical learning is of course the main thing in implementing historical learning based on the example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta, which must offer a value offer to historical

events or figures, to increase students' imagination about past events. So that learning history, in general, must contribute values to student life. In this application, it is hoped that the aim of implementing History Learning is based on the example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta is in line with the vision and mission of the school which was launched, in the sense that it can bridge the vision and mission in SMA Muhammadiyah 3 Surakarta.

The history teacher explained that history learning at SMA Muhammadiyah 3 Surakarta had already referred to the applicable syllabus and curriculum, in its implementation it went well and effectively even though during the Covid-19 Pandemic it was carried out via Google Classroom with 2x45 minutes or 90 minutes. In the implementation of learning, it was first introduced by introducing National and Regional Figures who were influential in history and students were asked to choose one of the characters and then memorize the motto of the character by conducting discussions, presentations, and the students were asked to explore on their own and the teacher asked questions and affirmation so that in the history learning process there are students who are enthusiastic but there are those who are less enthusiastic about using strategies and methods, the Discovery Learning learning model and discussions by holding quizzes and post-tests.

History learning, which is carried out by history teachers at Muhammadiyah 3 Surakarta Senior High School is the right means of implementing History Learning based on the example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta because students have been faced with formal (valid) situations and places in carrying out Learning Activities. Whereas historical material is a fundamental educational material for the process of reforming and creating the civilization of the Indonesian nation in the future, and solidarity (togetherness) to become the nation's glue in facing the threat of disintegration of the Western nation with moral teachings and wisdom that are useful in overcoming crises in developing the responsible attitude and maintain balance and environmental sustainability [32].

In this study, the authors used the Enrichment Triad Model Theory initiated by Joseph .S Renzulli. According to Renzulli's opinion, this enrichment model has 2 directions, namely First, it provides opportunities for students to foster their interest, Second, helps students identify pragmatically, to solve problems that match their interests, and be able to produce appropriate products. In the Enrichment Triad, the activity model felt by students in its application is divided into three stages, including 1.) Type I General Explorator (General Exploration). 2) Type II Activities (Group Training Activities) Group Training. 3) Type III Individual And Small Group Investigation Of Real (Real Individual and Small Group Investigation).

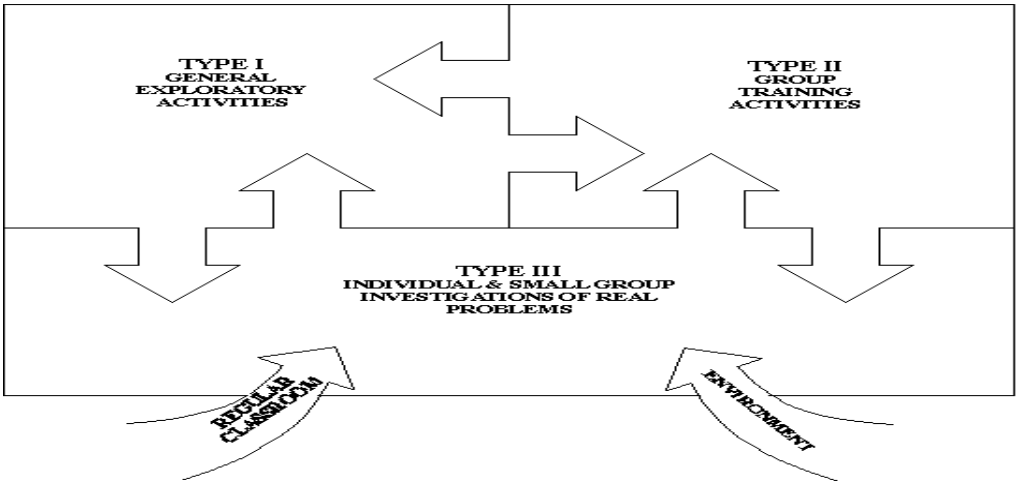

Fig 1. The Enrichment Triad Model

The Triad Enrichment Model is divided into three types of enrichment which are initially implemented in an enrichment program designed for academically gifted and talented students. However, the need for learning encourages educators to make Enrichment so that they can bridge the birth of new talents [33].

Stage I. is designed to enrich students' intellectuals, in this case, the teacher implements historical learning based on the example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta in the History Learning Implementation Plan, which is easier to apply it to history subjects, because students are equipped with various historical figures, both figures local and national figures and local culture, as well as role models that can attract students' interest in learning. So that students can more easily understand these exemplary values. The implementation of historical learning based on the example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta was carried out as an effort to prepare against the exemplary crisis that hit the Indonesian nation, especially students at SMA Muhammadiyah 3 Surakarta. The implementation of history learning based on the example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta can be done through history learning, namely, dislip through Basic Competencies 3.6 Analyzing the Role of National and Regional Figures in Fighting for Indonesian Independence. In Type III, the hope is that students can be more motivated to develop experiences independently.

Stage II. Includes materials and methods designed to promote thinking and feeling processes. The method is interpreted as a method used to achieve predetermined learning objectives without a good and suitable method, so what is desired in learning will not be achieved. In this case, the history teacher uses the discussion method in learning it must be by the circumstances and situations of the students, to create a conducive and good atmosphere, in line with this history teacher Ibuk Indah Rahmawat Akbar, S.Pd, stated that supporting facilities in learning is like Study books for teachers and students, image projectors (LCD) and other supporting facilities are good. The school tries to provide the best for students at SMA Muhammadiyah 3 Surakarta, because with good facilities it can guarantee good quality education for teachers and students in teaching and learning [34]. Furthermore, the teacher in Implementing History Learning Based on the example of Buya Ahmad Rasyid Sutan Mansur at

SMA Muhammadiyah 3 Surakarta with the Discovery Learning model on the problems that occur in the current era. In the sense that the teacher makes students the figure of Buya Ahmad Rasyid Sutan Mansur in the current era. The teacher provides contemporary problems to make students have the ability to develop creativity, innovation, critical thinking, the ability to solve problems, the ability to communicate and work together, as well as the ability to utilize technology and information as well as students' communication skills. So that it can bridge the interests in Stage III

Stage III. Involving students and focusing students on learning activities and developing experiences independently means that activities that students must do in obtaining information and new competencies must be under the desired constructivist goals (generative, namely an act of fostering something meaning in what has been learned). Then able to adapt their teaching activities to the styles and characteristics of student learning), in this case, students are given the breadth of doing assignments independently in exerting each of their respective abilities which can later be used in the learning process in taking roles as role models for students

In this section the teacher motivates the study of Buya Ahmad Rasyid Sutan Mansur who can inspire life in Implementing History Learning Based on the example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta, the teacher gives similar tasks related to heroes or warrior figures in the history of the Indonesian nation, especially within Muhammadiyah which has inspired to this day.

Theoretically, evaluation is a systemic and systematic effort in collecting, looking for explanations, and processing data and the objective information is to conclude the value, importance of a program and the results of these conclusions can be used to make a decision, plan, or improve a program. In the effort of modification, innovation (diversion), and improvisation (provision) of effective historical subject matter, therefore, an appropriate evaluation model is needed on the effectiveness of historical subject matter. Before explaining further about the assessment we first want to review three terms that are often confused in everyday life, namely teaching, evaluation, assessment, and testing. Assessment is a process of gathering information to determine the extent to which the learning objectives that have been applied are to be achieved. This information can be in the form of words from teachers, parents, quality of books, assessment results, and student attitudes. Evaluation in the form of tests, questionnaires interviews, and observations. Assessment, which includes all the methods used regarding the collection of information regarding the knowledge, abilities, understanding, attitudes of students which can be carried out through tests, self-assessment both formally and informally, while testing is one of the procedures that can be applied in assessing student performance. Tests can be objective, and subjective. The test is a way of measuring a person's ability, both in terms of knowledge and performance in a predetermined domain [35]. Evaluation or assessment of learnin in implementing historical learning based on the example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta is the final component of history learning. Assessment is a form that is very decisive in evaluating teaching and learning outcomes in schools [36]

In the Learning Implementation Plan (RPP), Ibuk Indah Rahmawati Akbar, S.Pd, plans, and evaluation of history learning using several assessment models. These learning models are designed in the Learning Implementation Plan (RPP), the evaluation of learning outcomes will run well and be carried out if in practice adhere to three principles, namely the overall principle, continuity, and the principle of objectivity, this is based on the aspects used as an assessment of learning outcomes which is guided by the Cognitive, Affective and Psychomotor aspects, which in the Cognitive (knowledge) aspect the history teacher at SMA Muhammadiyah 3 Surakarta

uses written test assessments and assignments, while in the skills aspect uses the analysis summarized by the students. These assessments have been planned and can be applied in the evaluation of the learning history of National and Regional Figures in Fighting for Indonesian Independence and the Role of National and Regional Figures in Fighting for Indonesian Independence. Depends on student needs.

3.3 Teacher Constraints In The Implementation Of History Learning At SMA Muhammadiyah 3 Surakarta

In implementing learning, it is closely related to a conducive environment where students can learn actively, and the formation of aspects of knowledge, attitudes, and skills of students, as well as adjustments to activity plans and class management. In the teaching and learning process, it must be environmentally oriented and adhere to the principles of personality and educational outcomes that are useful and can be used by the community. As Muhammad Yusri, Muhammad argues that learning and teaching activities can be said to be successful in the process, if students have to play an active role both physically and mentally then that is where the teaching and learning process can be said to be successful in learning [37]. Implementing History Learning Based on the example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta is not a process that can be carried out briefly. In that sense, after students know about the exemplary values of Buya Ahmad Rasyid Sutan Mansur. There needs to be coherence and continuity from various parties so that students try to instill these exemplary values. In essence, students at SMA Muhammadiyah 3 Surakarta have shown good character, the obstacle faced by a teacher is that students have not fully tried to instill character values in themselves. Even though students already know the exemplary values, but besides that, the teacher has tried to continue to instill and provide examples for their students, so that they can do actions that reflect exemplary values.

At the planning level in the preparation of the Learning Implementation Plan (RPP), there are no obstacles, in the preparation of learning objectives, there are no obstacles at all. However, it appears at the level of activity, at the level of student activity is quite good and so far effective in learning, but some students in learning history through Google Classroom at SMA Muhammadiyah 3 Surakarta, while history teachers teach history learning there are students who are enthusiastic, but there are students who less enthusiastic in learning, therefore, the activeness of students in the history learning process also influences the implementation of historical learning based on the example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta to the students themselves, another obstacle in implementing historical learning is based on exemplary Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta, which is in the time allocation used by history teachers that in providing history learning material to students the time is too short so that it is constrained when the learning is carried out, and the discu method the group used in learning activities is not going well. Because in group discussions it took a long time, so group discussion activities were continued in learning at the next meeting, because the time allocation for history lessons became a serious obstacle in the history learning process at school, in line with what Leo Agung said. S. in his writing entitled "Development of a Character Education Based High School History Learning Model in Solo Raya" (2012) in the Journal of Education and Culture, states that the obstacles to learning history include limited teaching time, lack of sourcebooks as a student guide or other references. which supports learning, as well as the absence of a laboratory or IPS / History Lap as well as the existence of a description from the Public regarding the lessons in the UAN and those not in the UAN, the lack of enthusiasm for reading the students and the facilities and infrastructure provided [38]. Apart from some of the existing obstacles, another

obstacle is that there are problems with the learning resource books, where the sourcebooks are inadequate in the learning process, so that there is a lack of material to be completed in learning, but besides that, it is supported by other sources such as worksheets, and supported by interactive multimedia sources and the Internet.

4 Conclusion

A figure and scholar who deserves to be emulated must have morality, intelligence, and ability to organize, in the implementation of Historical Learning Based on the example of Buya Ahmad Rasyid Sutan Mansur at SMA Muhammadiyah 3 Surakarta has been running quite well and effectively, in the history learning process during the Covid 19 Pandemic through Google Classroom, Constraints in Implementing History Learning at SMA Muhammadiyah 3 Surakarta, namely inadequate learning resources, insufficient learning time, while the subject matter is large, due to the different character of students.

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Students' perceptions on the effectiveness of Modified GI in the reading comprehension achievement

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Abstract. This present study was aimed to examine the student's perception in relation with the modified group investigation (GI) effectiveness in teaching reading comprehension for junior high schools' students in Indonesia. The data were collected from the students at the 8th grade of SMPN (junior high school) in Bandar Lampung by administering a questionnaire on the students' perception. The results of the questionnaire show that the students got a positive perception on the effectiveness of modified group investigation. Specifically, the data show that the modified GI enables students to a better understanding of the material, facilitates the students to express their ideas freely and promotes the students' active learning process and collaborative work in group.

Keywords: student's perception, teaching reading comprehension, modified GI

1 Introduction

Students are the centre of the learning process. They have to experience the engagement in learning in order to develop them into an educated person. Learning English for students is quite challenging because they have to be exposed to the language intensively while they develop the ability to learn together. Teachers have to assure that the students learn in a supportive situation in the process of learning English.

Reading is the means of finding the pupose of expressions and words in the pessage[1]. Reading is an understanding of the text or written language or symbol that required by society and/or valued by the individual [2]. In addition, reading is a way of recognation and comprehending text as a skill [1]. Therefore, reading is an activity of discovering the meaning of the passage. In addition, reading comprehension refers to the getting and finding ideas in the text before, during, and after reading by combining the various statements written by the author with the reader's prior knowledge. Furthermore, reading is a way of merging the various sources to get good understanding [3].

As language learners, the learners should be able to extract and get the meaning from the reading text. But in fact, in several countries in Asia in which English taught as a foreign language, most of the students need a lot of time and get difficulties to comprehend the reading text. According to Nezami who classified reading problem in the classroom activity into four aspects 1 Vocabulary aspect as a tool for reading activity 2 Difficulty in Skimming and Scanning process of Reading 3 Problems appears during Prediction of Passage with readers' background Knowledge 4 Incompentece in the Skill of Summarizing of reading text [4].

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Regarding those problems, GI can be the solution for students' reading comprehension problems in selecting and designing reading comprehension activity. GI focuses on group work and it has a communicative method for teaching and learning activity in which students perform in group interaction to exchange the information. It is a method for classroom activity in which pupils perform through peer interaction to examine, impression, and comprehend the discussion topic in learning process. The students do the task together through group interaction to achieve the learning outcome. Hence, it will assist the learner in reaching reading comprehension achievement more completely [5].

As a matter of fact, CL is a learning strategy that is systematically structured and it can be used at all grade levels in school and campus [6]. The cooperative situation during groups' activity and the cooperation shown by students provides opportunities to improve student comprehension [7]. Those statements are in line with several previous study, studies have signified that CL as a learnung strategy turns out to be a valuable method to support students learn reading comprehension skill while encouraging positive attitudes among group members [8].

Many studies have been conducted on the effect of using cooperative learning methods for students' perception and reading achievement. Some studies concentrate on conducting their research to compare the effectiveness of various cooperative learning methods. For example, the examination of student team achievement division (STAD) and group investigation (GI) techniques on students' reading comprehension achievement of English as a Foreign Language (EFL) [9],[8]. There are also studies that observe the effect of group investigation on achievement, motivation, and perceptions of students in Singapore [10] or on the specific language skill achievement like writing [11]. More studies in different subject matter recommend the effect of GI methods in improving the critical thinking skills [12] or basic knowledge and skills [13], or students' achievement and retention [14].

However, the study of students' perception when the teacher uses modified GI to improve reading comprehension achievement is a dimension that researchers need to explore. As a matter of fact, students' perception is needed to listen to students' response. This study examines students' perception to the implementation of modified GI in reading comprehension in an English class as a Foreign Language (EFL) of eighth-grade students in SMP in Bandar Lampung. It specifically focuses on the effectiveness of implementing modified GI; that is, asking questions about the parts of the advantages of using modified GI.

2 Literature Review

2.1 Students' Perception

Perception is the way the senses being aware of many stimuli [15]. The students' perception refers to perceiving their EFL learning experience learning goal and/or learning activity provided by the teacher [16]. In line with this statement, there is a finding of a study that reveals that students' perception is related to the students' perceiving of the learning goal. It means that students' perceptions are related to the effect of implementing a method in the teaching and learning process [17] and the perceptions of students and/or teachers are seen to be important in controling the process of applying method or technique in courses [18]. It can be concluded that

to know the effectiveness of applying a method or technique in the learning activity, the students' perception is needed to be explored by the teacher.

2.2 Reading Comprehension

Reading comprehension is the activity of comprehending and exctracting the meaning or information from in the text. The process of comprehension take place when the reader issues and merges various understading and combines it with the prior knowledge and information they already knew. It means that comprehension is the process of integrating the information of an activity, and the comprehension process also include the activity of combining the prior knowledge and the new information to construct the meaning from the text. Thus, the whole comprehension procedure is a vital point for the reader in the reading process [19].

In brief, reading comprehension is defined as an activity to comprehend the symbol or printed word in the form of text including extracting the various information in the text. In the comprehension process, the interaction between reader background knowledge and new information contained in the text occurs to achieve the optimum level of accepting the ideas expressed in the text. Hence, the reader can construct meaning and get new information through this process [7].

2.3 Modified GI Learning Strategy

CL is derived from the word cooperative which means solving problems together by supporting each other as a peers. There has been a belief that cooperative learning is one of the important learning strategies for students working together in getting common goals. The CL strategy provides the peer cooperation and interdependence in its projects, learning objective, and honor [20]. Cooperative learning defined as "students work together in a small cooperative group to investigate the learning material" [21],[8]. Cooperative learning emphasizes understudy cooperation as opposed to learning as an individual that works in a group to solve the problem and find the solution [22].

GI is a multiplex strategy in the cooperative learning strategy. But this statement also implies that it is the most organized strategy in cooperative learning [6]. The goal of group investigation is to make member of group conduct the investigation as a peer interaction and formulate the final project at the end of the learning process. GI provides students to group discussion, make a learning plan and conduct the investigation acticty, integrate the final project, and present their final project in the class [10]. from the detailed structure of the GI strategy, GI makes sure that every member of group has judgment (such as ideas and opinions) to supply their role in group interaction by giving students the freedom during the classroom activity. In addition, it makes students work and think actively while they have the opportunity to assist the team. Hence, all the member of group has something to join the investigation.

The result of the analysis also suggests that group investigation is a strategy in the form of student team's plan for classroom instruction in which they make sure the students choose the topics to be discussed and how to conduct their group plan. Thus, GI is a learning strategy that organizes the learners into groups interaction that make students work as a team collaboratively and help each other.

Regarding the clarifications above, it can be assumed that GI is a comprehensive strategy in cooperative learning that can make the students assist each other to understand the material by discussing the text in a group. This strategy makes students work together with their friends to solve their problems as a group work.

3 Research Methodology

This is a decriptive quantitative research. Its setting is in Bandarlampung. The sample is the students of junior high school in the second grade. The instrument is a 4-scal, close-ended questionairre validated and tried out before being adiministered.

3.1 Population and Sample

The population of this research is the students of the eighth grades of in the school where the GI was implemented in the 2019/2020 academic years. The population of this research is three classes of second graders. The number of students of each class is around 29 to 30 students. By using cluster random sampling, the cluster was preferred as the sample of this study. The class learned the English reading comprehension for understanding the recount texts through the modified GI model.

3.2 Data Collection Procedure

Two questionnaires were distributed (before and after the implementation), The first questionnaire contains of 10 items that are related to the pupils experience in the teaching and learning process as a group. This questionnaire has been validated by three validators to confirm the validity of each item in the questionnaire.

The second questionnaire consists of 4 items which cover the effectiveness of using modified GI. The items of the questionnaire are adopted from WL [15]. This instrument aims at finding out students' perception after being taught by using modified GI. This questionnaire is related to the students' perceptions of effectiveness of using modified GI in teaching reading comprehension. The questionnaire includes four-scale scoring system to indicate the positive or negative perception.

As the pandemic condition does not allow the students to meet and learn in the real classroom,the second questionnaire were distributed online through Google Form to get the data from the students after the implementation, the questionnaire responses were then collected and organized.

3.3 Data Analysis

Following the design of the research as a descriptive quantitative research, the data of the questionnaire responses are scored and calculated to get the trends of the response; whether it is a positive trend or the negative one.

4 Result and Discussion

The students' perception before experiencing the GI is presented in Table 1.

Table 1. Students' Perception before Giving the Treatment

No.	Statement	Option	
		Yes	No
1.	Have you ever heard or seen the term "group investigation"?	22.2%	77.8%
2.	Have you ever learned English reading skills by sitting in a group?	83.3%	16.7%
3.	Have you ever learned English reading skills by performing a discussion?	72.2%	27.8%
4.	Have you ever learned reading skills in English by investigating a specific material?	72.2%	27.8%
5.	Have you ever learned reading a text in English by gathering information with a number of group members?	61.1%	38.9%
6.	Have you ever experienced learning English by using learning task plan?	16.7%	83.3%
7.	Have you ever known learning by using final project?	44.4%	55.6%
8.	Have you ever presented your final project in front of the class?	66.7%	33.3%
9.	Has your friend ever given you a written feedback while you are studying?	83.3%	16.7%
10.	Has your friend ever given an oral feedback while you are studying?	77.8%	22.2%

From the data in the figure, it is shown that 77% students responded by stating that they never heard the term of group investigation. On the contrary, when the students were asked detailly for each activity in GI, 49,4% students has experienced them. Meanwhile, 83.3% of the students ever learned reading comprehension by performing a discussion. Therefore, it is evident that group learning discussion was known as cooperative learning, and a specific term known as GI is not familiar to the students, yet.

4.1 Students' perception concerning the modified group investigation effectiveness in teaching reading comprehension.

Table 2. Students' perception related to the use of MGI

No.	Statement	Option			
		Strongly Agree	Agree	Disagree	Strongly Disagree
1.	Modified group investigation strategy is useful.	33.3%	66.7%	0%	0%

Table 3. Students' perception related to the effectiveness of MGI

No.	Statement	Option			
		Strongly Agree	Agree	Disagree	Strongly Disagree
2.	Learning reading comprehension using Modified group investigation strategy is effective.	33.3%	66.7%	0%	0%

As shown in Table 2 and Table 3, all of the students agreed with the first question. From this response, it seems that 100% students had good perception in participating in GI activities during the reading comprehension class. Furthermore, it revealed 100% of students in experimental class agreed with the statement about the effectiveness of modified GI strategy. It could be concluded that the students give a positive perception about the effectiveness in the implementation of modified GI, the students believed that using modified GI in reading comprehension class is effective.

Table 4. Students' perception related to the advantages of MGI

No.	Statement	Option			
		Strongly Agree	Agree	Disagree	Strongly Disagree
3.	I get many advantages while learning reading comprehension using Modified group investigation strategy.	40%	60%	0%	0%

As presented in Table 4, 100% of the students agreed on item number 3, by indicating that they had an interactive class and the students could exchange ideas as collaborative work in group interaction. In addition, the students could engage in pair work and group discussion and they could establish class spirit.

Table 5. Students' perception related to the disadvantages of MGI

No.	Statement	Option			
		Strongly Agree	Agree	Disagree	Strongly Disagree
4.	I get many disadvantages while learning reading comprehension using the Modified group investigation strategy.	13.3%	13.3%	66.7%	6.7%

As presented in table 5, students' response in the fourth part of the questionnaire indicated that students generally had good perception on the item. There were 26.6% students who gave negative perceptions. However, 73.4% students give positive perceptions. It can be inferred that most students did not get disadvantages in implementing modified GI while there were some students who felt modified GI gave them some disadvantages during the implementation. It seems that students did not get the chance to share their ideas in peer interaction or group interaction, the students hesitate to communicate via whatsapp group.

The result shows the students' perceptions toward the effectiveness of modified GI (Question number 1 and 2). Besides, students' perception toward the advantages of Modified GI is 73,4 % disagree on the disadvantages of the modified GI strategy. So, it can be concluded that the students have thought that modified GI in reading comprehension is advantageous for learning. Modified GI provides many advantages for reading comprehension activities like they had more interaction in group activity to exchange the idea from each group. The advantages for the students are as follows: (1) Motivate students to learn, (2) Gain confidence while learning as a result of peer support, (3) Improve student achievement [6].

Based on the data above, the positive result of students' perception level in reading comprehension class was confirmed. The data shows that most of the students during the implementation were in good condition of each perception aspect. This means that most students feel satisfied with the implementation. Moreover, based on the questionnaire result, it could be inferred that most students felt free to make some statements without any limitation. In addition, the students show fluency in communicating with their friends during the peer interaction.

The study also indicates that the students' perceptions show a satisfactory trends towards the course when the students are working with the activities of modified GI in reading comprehension class. The study indicates that the group activities which includes the investigating process reflect a positive activities and product of the students. The implementation of modified GI in the group discussion framework provides students with freedom over their learning and generated in them a high sense of responsibility which made their learning a meaningful activity.

The result of students' perception implies that using Modified GI is effective, gives students a chance to express their ideas freely, and make students active in the classroom activity. It means that by using modified GI in reading comprehension class, the students keep the focus on the lesson and the activities trigger the students to keep learning while they could make group interaction. It coupled with the aim of group work is to trigger and give the facilities among peers to be active in the investigation process. Similar findings have been shown in Marzban & Alinejad [20].

Moreover, during the investigation session, most of the students were enthusiastic to join the activity. Besides, students were confident in delivering the ideas through the investigation.

In line with the result above, Ahsanah confirmed in her study that GI is gainful for the students because it can solve their weakness in English skill [5]. One of the weaknesses which often appear is the lack of confidence. The lack of confidence makes the students scared to share their ideas in discussion. During the implementation of the modified GI, students are active and enjoy the discussion activity.

In addition, the study is also relevant to jalilifar [8] because the students help each other as group member to interpret and manage the written language accurately in a text. It triggers the students to be active in reading comprehension activity. Similarly, this study also supports Karafkan [7] because students in the investigation group get help and support from competent peers in the group. Student contributions are valued in the group to achieve learning goals. GI provides an activity for peers to help each other to answer a question or comprehend a text.

Most students assumed that modified GI authorizes their activity in finding information through group intercation. Furthermore, they agree if interaction can improve English more than just learning from teachers and helps everyone reach the goal equally. Overall, the results show that the students get positive results in applying modified GI in reading comprehension classroom.

Furthermore, the students' perception stated that using modified group investigation is effective, gives students a chance to express their ideas freely, and makes students active in the classroom activity. It means that by using modified group investigation in reading comprehension class, make the students keep focus on the lesson and trigger the students to keep learning while they could make group interaction. It coupled with the aim of group work is to trigger and give opportunity to the students to be active in the learning process.

Hence, there is a trend that the implementation of presentation as the teaching learning activity influences students' reading comprehension achievement. This situation is also reported by Parinduri *et al.*, they claimed that the implementation of cooperative learning model GI as a teaching procedure improves student' achievement [13].

In conclusion, students' positive perception is in line with the students' reading comprehension achievement. Modified GI can help the students learn reading comprehension. The use of group discussion may support the learning or receptive reading comprehension. Based on data of the questionnaire showed that students' perception toward reading comprehension class using modified GI, through these questionnaires we can explain that: Most of the students like learning reading comprehension using modified GI because it triggers them to be active while learning in the reading comprehension activity and it gives more input and opportunity to the students without limitation to create the active situation while the investigation and the peer interaction.

In addition, it is important to note that the significant comparison between a simple discussion and GI is that GI is enforced by the emphasis to the investigation activity. Yet, many teachers implement most of the activities of GI but skipped the investigation process. In other words, there is a possibility that teachers may have insufficient knowledge about the strategies, both the cooperative learning, in general, and GI, specifically. It is suggested that teachers could study the procedures in any cooperative laerning strategies theoretically and practically in order to get the maximum result of the activities.

5 Conclusion

Based on the data from the questionnaire, modified GI helps students in the process of constructing meaning and getting information. Almost all students thought that modified GI assists them to acquire the information through investigation activity and it provides the active learning process. Moreover, students assumed that during the implementation they could learn reading comprehension not only by the teacher but they could learn by making group discussion or group interaction to gather information. Based on the result of students' perception, modified GI produces good stimulus for the students to achieve the learning objective by helping each other as group work. In short, modified GI is one of the successful methods to carry out in reading comprehension class.

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Independence and Responsibility of the Students Through Online Learning

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Abstract. Building character was the educational function that must be achieved through the learning process both offline and online. Cooperation and good communication were needed between students, teachers and parents to overcome the kinds of obstacles. The competent teachers in providing learning experiences and methods were needed to make students enjoy learning. Parents' companionship and support were expected to have an impact on the development of independent and responsible character for their children. Various efforts in building independence and responsibility of students in online learning had answered in qualitative research conducted at SMAN 1 Tumijajar. The data was obtained by distributing questionnaires to parents, students and teachers through the WhatsApp group. Online interviews were conducted with students. The result showed that students' independence and responsibility had been developed trough the online learning.

Keywords: independence, responsibility, online learning.

1. Introduction

National education had the function to develop abilities and the dignified character and civilization of the nation in order to educate the life of the nation, purposed to develop the potential students to become human beings who believe and fear the One True God, noble, healthy, friendly, capable, creative, independent, and become democratic and responsible citizens [1]. The learning process in any situation was not only prioritized to achieve curriculum targets, but had to prioritize the character building.

Parents involvements were needed in the learning process, especially in terms of character building. Hatimah quoted Lilawati said that education was not only the government reponsibility, but also the school (teachers), and families (parents) [2]. Parents were the first guide in basic attitudes and skills, such as religious education to obey the rules, and for good habituation. But, in online learning role was increasingly. Parents had to accompany their children to learn at home. Therefore, collaboration between teachers and parents were needed to overcome various obstacles.

From the results of pre survey at several high schools in Tulang Bawang Barat Regency obtained, researcher got the information about the obstacles faced in online learning. They were technical and substantive constraints. The technical constraints included: 1) Several students didn't have learning devices such as laptops, tablets, or androids; 2) the internet network had not been evenly distributed well; 3) the unstable internet connection; and 4) not all parents were able to provide data package for their children. Substantive constraints included 1) ICT competence of teachers; 2) limited ability of teachers to manage innovative learning in online

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learning; 3) motivation of students to follow online learning; and 4) support and involvement from the parents in online learning activities conducted by their children.

The students had to change the interaction pattern with their friend. They had to use phone or android to make a good relation without meeting others. They had to learn without teacher and friends beside them. It was difficult but they had to. The assignment gave by the teacher had to done. They felt boring and reluctance to follow online learning. The independence and responsibility of students in participating the online learning had to be built as the main character. As Lickona said that characters didn't just appear, but process from continuously constructed environments simultaneously [3].

To create a good online learning, teachers needed to improve paedagogic and ICT. Mastery of ICT was a part of the teacher competence. It used to support the implementation of teachers duties (planning, presentation of learning, evaluation and analysis of evaluation results). So that every teacher at all levels had to be ready to continue learning ICT in order to meet the demands of such competencies [4]. Teachers should be able to create effective communication in the online class. Teachers established communication and collaboration with parents. Parental involvement in online learning activities was urgently needed with regard to the process of monitoring and building character values, especially independence and responsibility.

The value of self-character was attitudes and behaviors that didn't depend on others and used all energy, mind, time to realize hopes, dreams, and ideals [5]. Independent children had a good work ethic, resilient, fighting, professional, creative, courageous, and became longlife learners [6].

Responsibility was an embodiment of one's integrity. Responsibility was described as the attitude and behavior of a person to carry out his duties and obligations, which he should do, towards himself, society, environment (nature, social and cultural), the country and the God [5]. In home learning activities, the establishment of an attitude of responsibility to the child began by building the child's awareness that they had to be responsible in every way including when giving home chores, they had to do so [5].

Various efforts to build students' independence and responsibility in online learning had been answered in qualitative research held at SMAN 1 Tumijajar.

2. Method

This research used qualitative methods that aim to describe the online learning process in building the values of independence and responsibility of students.

The subjects were students of Grade XI IPS 3 and XI IPS 4 SMAN 1 Tumijajar who participated in the online learning at the first semester year of study 2020/2021. Consisted of 66 students, 26 persons (39.39%) male and 40 female (60.61%). Data collection was conducted by questionnaire and interview method of 5 informants who stated willingness to be interviewed online using WhatsApp video calls and offline through face-to-face meetings with researchers. The reason for choosing 5 informants was they were willing to disclose the online learning process that had been followed.

Analysis of research data used the Miles & Huberman analysis model. The stages in the data analysis according to Miles & Huberman quoted by Albi Anggito and Johan Setiawan (2018) consisted of data reduction, data display, withdrawal and verification of conclusions [7].

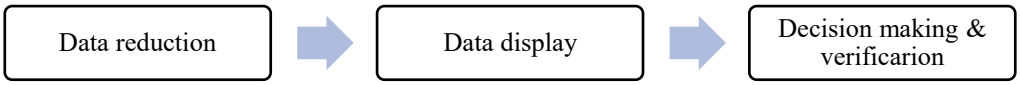

Fig 1. Stages of research data analysis

The data reduction stage was the stage of collecting all the information needed from the interview results and then grouping the data. The data display stage was the exposure of data required in research and that does not need to be discarded. The verification and conclussion were the stage of interpretation of research data to take conclusions based on the phenomenon obtained [7].

3. Results and Discussions

3.1. Online Learning Process

Based on the results of online questionnaires spread using online classes and WhatsApp group classes with 66 respondents students obtained information about the type of online classes used in online learning in class XI IPS 3 and XI IPS 4 found at the following table:

Table 1. Types of online classes used.

Subject	Type of online classes		
	Google Classroom	WhatsApp Group	Microsoft Kaizala
Religious Education	v	v	
Civic Education	v	v	
Indonesia	v	v	
English	v		
Phisical education & health sciences			
Indonesian History	v	v	
Art & Culture	v	v	
Mathematic	v		
Economy	v		
Geography	v	v	
History	v	v	
Sociology			v
Craft	v		
Local Language of Lampung	v	v	
English literature		v	

Based on table 1, we could say that the process of online learning in class XI IPS 3 and XI IPS 4 SMAN 1 Tumijajar, 93.33% used assynchronous method. The lesson of Penjasorkes didn't do online learning. Teacher asked the students to take exercises at home. The assynchronous method was considered the easiest and didn't require a large of data package. The school management didn't require used of certain methods in online learning. But teachers should be able to create the learning without burdening students.

Online classes used by teachers according to students could add insight and experience to online learning. It through the online classes that students perform a variety of learning activities that desperately needed support from parents.

Table 2. Parental support in online learning.

Kinds of constraint	Number of respondent	Percentage
Buying the data package as needed	38 persons	57,57
Providing wi-fi	5 persons	7,58
Askingquestions about the child's development in taking online learning	6 persons	9,09
Reminind children to take online lessons	14 persons	21,21
Helping to overcome learning difficulties	3 persons	4,55

Most of parents supported the implementation of online learning. Parents did many ways to support their child in online learning. Most parents (56%) were willing to buy data package according to the needs of the child and provided wi-fi (5%). Asking about children's learning development during online learning (14%). Reminding children followed online learning at learning hours (20%) and helped children overcame learning difficulties (5%).

Through good communication between teachers and parents, it was expected that parents would be able to solve online learning problems faced by children. Communication and interaction between students and teachers certainly were not as effective as the communication beyween parents and their children (students).

Communication patterns between students and teachers or inter-students were limited. Communication conducted between students or between teachers and students were limited to provide motivation in learning and discussed of various phenomena or issues about difficulties in online learning. Exposing the subject matter also occured indirectly which can be made easier by the proper use of learning media. Fostering a responsible and independent character were the very essence things to practice in online learning.

Based on the results of online questionnaires spread using online classes and WhatsApp group classes with 66 respondents, researcher got the information about various obstacles encountered in online learning in the class of XI IPS 3 and XI IPS 4, found at the following table:

Table 3. Technical constraints in online learning.

Kinds of constraint	Number of respondent	Percentage
Network disruption	56 persons	85
Out of data package	10 persons	15

The constraints found in online learning consisted of technical and substantive. Technical constraints encountered by students in following online learning in the form of network disruptions. It this was experienced by 56 students (85%). 30% of students complained about the data package. 15% respondents thought that the unavailable data package was the main obstacle. The unavailable data package related to the high price of quota and the low economic capabilities of parents so that they could not afford data packages.

This substantive obstacle related to students' motivation in participating in online learning. Some of the students interviewed expressed boredom with the implementation of online learning. It was because online classroom management hadn't be maximal and needed to be improved. The competence of ICT teachers, the ability to design innovative learning, the ability to create or provide media and teaching materials had to be always improved. Teachers individually and by groups in official organizations should be able to make various breakthroughs to improve those competencies. The school as an institution through that the programs had conducted teacher trainings to improve the quality of learning itself. The government actually often facilitates teacher training activities with the same purpose. Unfortunately, these facilities hadn't been utilized best. Some of the teacher only taook the training activities to get certificates, not knowledge and experience.

To make students felt enjoying and motivated to take the online classes, teachers had to skilled in managing online classes. To create online classes, the school had conducted In House Training activities at the beginning of the 2020/2021 school year. Teachers were guided to select and created online classes such as Goggle Classroom, WhatsApp Group, and Microsoft Kaizala. Another activity that teachers had done before starting online learning were managing online classes. In managing online classes, teachers were required to provide teaching materials or learning media in both file and link form. It meant that the provision of media and teaching materials hadn't to create by themselves. Teachers could pick it up from media and teaching materials from the web. If the teacher took media or teaching materials from the web, they had to written down the source of the material had been taken. The teaching materials inputted into the online class were certainly very varied. Starting from files in the form of documents, pdf, images, videos, interactive media, or links. Providing varied teaching materials could added insight and experiences of the students in following online learning.

After setting up the class, the thing had to be done was input the student into the class or providing code for them joining the class. After it, teacher posted materials, assignments, or questions to be discussed by the the students. By posting the materials, teachers could see the depth of students' way of thinking in responsed to a problem. Teachers with students then discussed it as they done in the real class. One of the advantages of online classroom discussion was that students were sure to express their opinions.

Material submitted in online classes ofcourse could be downloaded by students. So, they could learn it without connected to the internet. In online classes, teachers also gave assignments. Students were given flexibility ways to submit the task. If the students got some trouble in submitting task, they were permitted to do it offline. For example by writing the results of a student's work report in the book. Then they sent it to the teacher.

Table 4. Student learning activities in online classes.

Kinds of activities	Number of respondent	Percentage
Doing attendance	27 persons	40,91
Doing task	21 persons	31,81
Learning material	9 persons	13,64
Disscusion	9 persons	13,64

Filling in attendance was the most activity had done by students. 27 Students (40.91%) said that they prioritized attendance during other learning activities. 21 Students (31.81%) choose to do assignments in online class. 9 persons (13,64%) learnt material and discussed a particular topic were the order activity said by others. The spread of this data showed

ineffectiveness of online learning. Therefore, teachers needed to improve their competence in managing online classes.

Attendance list was provided by curriculum section. for all students and classes. Students had to fill out forms distributed in online classes. It was done to control online learning process as well as to ensure that students remain facilitated to learn.

We also found that there was a tendency for students not to follow online learning even though they didn't actually have any obstacles. Actually, they didn't have any problem with the internet network or unavailable internet quota. But they said that they were in trouble. It was actually just a reason given to the teaacher. They kept doing activities online, such as played online games, enjoyed their social media (facebook, instagram, line, etc.), accessed youtube, and played tick-toks. As for downloading learning apps, they gave reason that their android memory was not enough. In fact, this could be done by removing other applications less useful to students. But they were reluctant to do it.

It became a challenge for a teacher to be able in managing online classes. Creativity and innovative had been developed. Paedagogic and ICT competencies balanced. Teachers were also required to be able to establish good communication and emotional bonds with students and parents.

3.2. Building independence Character Through The Online Learning

The values of self-character had to be grown through offline and online learning. Asmani (2011) quoted by Purandina (2020) argued that the purpose of independent character education was built the values of independence in students and the renewal of a common living system that better respects individual freedom. Hasan (Zubaedi, 2011:18) was quoted by Purandina (2020) said that independent character education in detail had five objectives. First, developing the potential of conscience/ affective students as human beings and citizens who had the values of the character of the nation [7]. Second, developing commendable habits and behaviors in line with universal values and cultural traditions of a nation that had the right to govern itself with the aim of maintaining public order. Third, building spirit of leadership and responsibility of learners as the next generation of the nation. Fourth, developing the skills into responsible, creative, and nationally minded human beings. Fifth, developing school environment life as a safe, honest learning environment, full of creativity and friendship, and with a high sense of nationality and dignity.

Table 5. Completion of assignments / materials in online learning.

Kinds of activities	Number of respondent	Percentage
Studying assigments or materials by themselves	57 persons	86,36
Asking help from parents or family	6 persons	9,09
Leaving material in the online class	3 persons	4,55

From the results of the questionnaire filled out using Microsoft Forms, 57 respondents (86.36%) said that they had studied material themselves without help from others, both parents and families. 6 respondents (9.09%) asked parents and siblings helping them to understand the material presented by the teacher. 3 respondents (4.55%) said that they only allowed material in the online class. The way that students learnt materials independently by downloading the material.

Students' independence in the implementation of online learning could also be seen from the enthusiasm of students to complete the task given by the teacher. The majority of students are about 57 respondents (86.36%) completed the task alone without help from parents, relatives or friends. Some respondents in interviews conducted online admitted that they only cheated on a friend's completed assignment. It was caused the other student uploaded the tasks in online classes. To anticipate it, teacher asked them to send the task individually to the teacher.

3.3. Building The Character of Responsibility Through Online Learning

Based on the results of online questionnaires spread using online classes and WhatsApp group class with 66 students respondents, 51 persons had attanding in class to follow the online learning. Others got problems to attend the class caused of some reasons. 42 repondents said that they got connection trouble, 16 respondents caused of the data package was run out, 3 respondents worked for helping parents, others gave no reason and forgot it.

Table 6. Reasons of student's absence.

Kinds of reasons	Number of respondent	Percentage
Network disruption	42 persons	63,64
Out of data package	16 persons	22,24
Worked to help parents	3 persons	4,54
Forgot to learn	1 person	1,52
Gave no reason	2 persons	6,06

With the presence of students in online classes, it interpreted that students had responsibility in joining the online learning. It based on the reason for the student's absence and how they did some efforts to replace his absence in the online class.

One of the points used to see students' presence in online classes was from presence list shared by whatsApp group. Student absence was not a sign that they were not responsible. Students who fill in the attendance list couldn't be said that they were responsible. It caused they had saved the attendance list link had been created by the curriculum team.

Most teachers used attendance provided by the curriculum team. Some students admitted that they had kept attendance list link. Therefore, the attendance list in online classes couldn't be used as a measure for the responsible character.

Table 7. Students' activities when they weren't in the class.

Kinds of activities	Number of respondent	Percentage
Contact the teacher to ask for additional time	37 persons	56,06
Complete the task offline	15 persons	22,73
Complete the task as they could	12 persons	18,18
Gave no excuses	2 persons	3,03

Timely assignment sharing was key indicator used to measure students' responsibility for learning in online classes. If a student had not completed their assignment in time, 37 respondents (56.06%) asked the teacher giving them additional time. 15 respondents (22.73%) had choosen to complete the task offline, 12 respondents (18.18%) complete the task as they

could, and 2 respondents (3.03%) didn't not give a reason for the efforts to be made at the time of not completing the task.

In online class teacher also provided discussion materials related to subject matter or difficulties in online learning. Students who had participated in discussion activities and responded or gave solutions to the problem that is being discussed, in the opinion of the teacher can also be said to have responsibility. In the discussion forum, it was clear that the interaction between teachers and students or between students could occur without time and space limitations. This was not the case with offline learning.

To make the students responsible for the online learning activities, teacher gave various tricks. One of them was awards and warnings to students and parents. For the students who had followed online learning well, teacher gave praise and better grades. Otherwise, for the students who hadn't not participated well in online learning for no apparent reason, did not carry out assignments on time, and did not even participate in discussion forums, the teacher gave warnings to students. The teacher also followed up these warnings and communicated with the parents by telephone and WhatsApp.

3.4. Communication between Parents, Teachers, and Children

Ki Hajar Dewantara quoted Kemdikbud (2017) as saying that the success of education was very determined by the family, considering in the family the foundation was built so that the family could be referred as an education center [6]. Therefore, between parents and schools should be able to be partners to equally achieve educational goals.

Students of course needed a model that can be used as an ideal example. teacher at the school was be seen as a model of child behavior. In offline learning of course this wouldn't be constrained. But during the covid-19 pandemic today, offline learning was a rare thing. When school buildings or campuses became deserted from learning activities, then actually they learnt the activity beajar activity was happening in cyberspace. Online learning was ultimately not just an alternative, but as a necessity. In these circumstances, students still had to get the right example figure and model to emulate. Errors in providing examples or models caused more serious problems.

Parents in this case should be able to be a model of behaving for their children. With online learning, the child was often at home with his or her parents. It meant that parents should be able to communicate and interacted in a very close intensity. Purandina (2020) states that parents should be able to act as filters that help children filter out negative influences or having a bad impact on their development [7]. Parents had to be abel in acting as a teacher for children with various learning resources close to their daily environment. Parents also did the act act as catalysts that be able to explore and optimized the potential children have.

The importance of communication between teachers and parents was certainly very related to various learning difficulties experienced by the child. Children often express their learning difficulties to parents. 32 respondents (48%) stated that they conveyed online learning difficulties to their parents. 10 respondents (15%) to the brothers, 18 respondents (27%) complaints to friends, and only 6 respondents (10%) complaints about online learning difficulties to teachers. The role of families in accommodating complaints about online learning difficulties is still huge (63%).

Table 8. Communication for submitting complaints and difficulties in online learning.

Kinds of activities	Number of respondent	Percentage
Convey learning difficulties to parents	32 persons	48,48
Convey learning difficulties to brother or sister	10 persons	15,16
Convey learning difficulties to friends	18 persons	27,27
Convey learning difficulties to teachers	6 persons	9,09

It indicated that the intensive communication between parents and teachers should be happened. So, parents could understood every complaint from the children. On the contrary, complaints submitted by the child to the teacher can be known by the parents. If parents and teachers had already known and understood about the difficulties of learning online, then they could find the best solution for the problems.

Not only in communicating about the child's learning difficulties, parents were expected to supervise and accompany their children's online learning activities. In conducting supervision and mentoring of their children, parents could asked for the opinion of teachers Independent and responsible characters could also grow as expected.

To further strengthen the interaction between the child and the parent, it should be created at home a variety of shared activities involving parents and children. Positive activities conducted at home together form a good emotional bond between the child and the parents. A chemistry that would appear during the activity together, fostering love that later became a habit (habbit) [8]. This concept was actually very good applied in the family environment by getting used to positive character values in each joint activity [9].

4. Conclusion

Learning activities during the Covid-19 pandemic should still be carried out with the aim of forming a character that was in accordance with the expectations of masayarakat, religion, nation and country. Self-sustaining values and responsibilities were certainly one of the main characters that must be formed in students. Online learning on the one hand was an alternative to choose from, although on the other hand we had to be prepared to face online learning as a necessity. The most important thing was that the spirit of learning had tobe main turned on in every person, whether teachers, parents, society, especially students.

Any obstacles faced both technically and substantively should be concern to all parties. With the involvement of various parties such as teachers, families, communities, various government and private agencies, then we would feel a great optimism to be able to overcome various problems that arise. The technology used to manage online classes was just a tool. Meanwhile, teachers, students, parents, and the community were the users who would determine which direction education would be brought on the face of the earth. Online learning did require the presence of technology, but the involvement of parents, families, and teachers as well as harmonious communication between these parties was a key that could not be replaced with an application as sophisticated as any.

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Literature Study: Cultivating Civic Skills through Student Organizations in Higher Education

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Abstract. This study conducted to gather sufficient information regarding the cultivation of civic skills through student organizations. The method used in this study is a literature study that collects several previous studies to find out how to instill civic skills through student organizations. The results of the study showed that student organizations in instilling civic skills, namely through socialization as a medium for disseminating information and selecting organizational activity programs that can arouse students' mindsets to think critically, responsibly, and scientifically. Common obstacles faced in implanting civic skills are external and internal constraints such as licensing, funding, secretariat, coordination, lifestyle, lack of student interest, and different student backgrounds. However, student organizations have their own ways of overcoming the obstacles faced in implanting civic skills.

Keywords: Civic skills, student, student organizations.

1. Introduction

Higher education institutions are required to play a role in forming the next generation of the world, not only as committed citizens and skilled workers, but also as representatives of organizations, societies and nations [1],[2]. Student activities in higher education besides learning activities in classrooms, there are also activities in student organizations. Student organizations are places where students gather to form groups to achieve common goals. Student organizations are a place to develop their functions and roles as students, such as developing intellectual personalities that will later be useful for entering society. Involvement of students in organizations is as one of opportunities for them to develop skills. It can help students in promoting their professional interests and developing professional skills [3].

Student organizations are a vital part of the extracurricular program at most colleges and universities. In the increasingly litigious society of today, how-ever, student organizations are no more immune from legal concerns and the threat of litigation than the institution as a whole is. The courts have recog-nized that colleges and universities have certain obligations toward students who desire to associate with one another in an organized fashion for any number of purposes. The courts have also recognized that institutions have certain responsibilities relating to the operation of recognized student groups [4]

The existence of student organizations almost coincides with the existence of educational institutions. Student organizations in secondary schools have become widely recognized among students through various co-curricular or extracurricular activities [5]. In 2015, more than 25 percent of students reported being involved in student organizations during their first year at college [6]. Student organizations provide opportunities for students to build social networks on campuses and also provide important experiences for students while studying in college [7]. Universities involvement in providing a valuable context for students to express several questions that need to be studied and analyzed [8].

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Several studies have shown that there is an increase in student leadership knowledge and skills while in college [9],[10] and other research—such as the Multi-Institutional Study of Leadership—is began to demonstrate high-impact experiences in building student leadership capacity (including socio-cultural interactions with peers, mentoring relationships, community service, and membership in off-campus organizations) [11]. However, little is known about how and why they learned and developed these skills. While this is a good starting point for understanding how student leadership develops, more research is needed [12]. Foubert and Grainger have reported that students who were more involved in student organizations had greater skill development scores than students who were not involved [13].

Much literature has revealed that student organizations provide opportunities for individuals to acquire or develop good communication skills, enable them to learn from other people of different ethnicities, and provide support to less fortunate people among them [14]. Participation and involvement of members in organizations supported by the university seem to provide different opportunities for students to become acquainted with campus life and also promote intellectual development [15].

Participating students perceive contributions in student organizations as an essential element of socialization, and their academic persistence provides participants with the resources to excel in an academic environment. [16]. It is recommended that students complete their studies while participating in the organization. The more students participate in the organization, the more likely they are to increase important skills that will be useful in dealing with the real world [3].

The importance of students in joining organizations because organizations provide benefits for students themselves. Student organizations require students to interact directly with other individuals, students are trained to have an attitude of initiative, assertiveness, openness, and empathy. Through these student organization activities, students are encouraged to become active individuals in interacting with other individuals. Furthermore, student participation in various student organization activities will also develop their skills in resolving conflicts, both those occurring within the organization and interpersonal conflicts. Through various experiences in student organizations, students can get greater opportunities to hone their sensitivity and social and communication skills and can learn ways to develop social networks, both on and off campus, ways to adapt to the social environment and ways to maintain warm interpersonal relationships with others. In addition, through student activities, students are also accustomed to living together, working together, and developing close relationships with other individuals.

Student organizations have an important role to play in training and equipping skills to go into society. In a student organization, it must be able to accommodate students to aspire, train students to solve problems quickly and accurately, have responsibilities, and develop civic skills. Students are also trained to have critical thinking about an event and to be responsive to events that will occur around them. Organizational life provides resources for democratic discussion, training in sound decision-making, and encourages collective action within and between student organizations [17]. Debate clubs and literary communities facilitate the development of speech and political skills required in legislative, judicial and civic activities [18].

Citizenship skills are important skills in developing the civic engagement capacity of citizens. Research shows that individuals who have citizenship skills to participate in civic activities have a higher rate than individuals without citizenship skills to participate [19]. Citizenship skills have been defined as the "communication and organizational skills" needed to engage effectively in politics such as discussing politics and communicating with political figures. Individuals who develop civic skills are more likely to become involved politically, be able to engage effectively, and be able to use their time and money more efficiently. In addition, citizen involvement the state plays an important role in helping the student community to change the unfair structures of their community by teaching them the skills needed to work with others towards more equitable outcomes. This makes the community the perfect place to reach out to a group of individuals who are not normally mobilized in our political system. However, research is very limited on citizen involvement in the student community on campus [20].

In addition, education should encourage skills such as critical thinking or decision-making or collaborating which are also referred to as civic skills, but the foundations of civic skills require more basic explanations in the literature [21]. Center for Information and Research on civic Learning and Engagement (2003) in a comprehensive report highlights that civic skills do not exist in a vacuum; they are part of a larger set of ideas about what it is believed necessary for citizens to engage in public life. The idea that, in addition to knowledge, some type of 'skill' is required for citizens to participate effectively in public life makes intuitive sense. Thus, civic skills can be categorized as personal communication skills, knowledge of the political system, and the ability to think critically about the life of citizens and politics [22].

2. Method

The method used in this study is a literature study that collects several previous studies to determine how to cultivate civic skills through student organizations. Literature study is an activity to study data sourced from books, magazines, journals, and scientific papers as well as other reading materials that can be used as references to increase knowledge and find a solution to problems or phenomena through an analysis.

3. Discussion

Higher education institutions should focus on core competencies [23]. Core competencies include (1) effective communication; (2) critical thinking skills; (3) character building; (4) preparing citizenship; (5) diversity of life; (6) preparing a global society; (7) obtain broader interests; (8) career and vocational development.

According to researchers, involvement in student organizations has contributed to skills development [7],[8],[14]. In many colleges and universities, students are not required to be involved in student organizations. However, students are well served and gain leadership experience and other skills through various activities outside of formal learning [3].

Students can improve the quality of their education by developing knowledge, skills and competencies through involvement in several extracurricular activities on campus such as student organizations. Student involvement in student organizations has long been studied as a major contributor to student development. However, there is still much to be learned about student organizations and their impact on student development. Previous research has shown that student involvement in activities outside the classroom has been shown to be an important factor in student development [24]. Employers are looking for students who have the knowledge, skills and competencies to work in their company [23].

Higher education institutions must continue to study the impact of student involvement in student organizations because these organizations provide social opportunities for students to be involved in campus life in universities. Student engagement enhances degree attainment and achievement. Continued participation and networking can stimulate students to apply their college experience to success [7]. Student involvement promotes degree attainment. Continual participation and networking can stimulate students to negotiate their college experiences successfully [25].

Interaction between students is useful and student organizations provide opportunities for students to interact with each other, form close relationships, and provide a better understanding of the relationships they develop [26]. Student organizations that serve as gateways can enable students to grow more competent, interdependent, purposeful, and congruent. Student communities should (1) encourage regular interaction between students and support ongoing relationships; (2) provide opportunities for students to collaborate; (3) make each member feel important; (4) involving people from various backgrounds; (5) serving each reference point for students by maintaining certain limits and norms through certain rules so that members have a standard by which to evaluate their behavior [27].

In the perspective of Citizenship Education, student organizations must be a means of support for students to develop soft skills that are important to be used to be able to directly engage in society. These soft skills are known as civic skills. Civic skills have two domains, namely intellectual abilities and participation skills such as interacting, observing, analysing, and evaluating [28]. There are two key components of civic skills: active listening and a respect for diversity [29]. Civic skills also include intellectual and participation skills, such as analyzing, evaluating, interacting, or observing [28].

Based on a holistic perspective, there are two types of student organizations based on their activity environment, namely extra-universal student organizations (extra organizations) and intra-university student organizations (intra organizations). In general, students can be grouped into two types, namely students who are active and students who are apathetic to student organizations. Students who are active in student organizations are students who fully participate by becoming members in student organizations. Meanwhile, students who are apathetic towards student organizations are students who think that student organizations only interfere with academic activities and it is better not to be active in the organization. This is indeed a problem that has occurred for a very long time because it cannot be separated from the assumption that student organizations are only the ones that carry out demonstrations and riots. Apart from that, the negative opinion that often arises is that campus activists tend to take a long time in their studies and result in drop-out.

There are many benefits that come from being organized. Each individual in the organization has different characters and traits. Therefore, by organizing we will learn how to communicate with other people, be it with the younger, the peers and the older. Organizing will also gain experience in how to talk and deal with important people, for example communicating with the dean and the rector. Likewise, when holding activities that go directly to the community, they will be trained on how to communicate with the community.

The existence of student organizations in higher education is important in terms of developing youth potential, as stated in Law of the Republic of Indonesia Number 40 of 2009 concerning Youth Article 3 that is:

> *Youth development aims at the realization of youths who believe in and fear God Almighty, have noble character, are healthy, intelligent, creative, innovative, independent, democratic, responsible, competitive, and have a leadership, entrepreneurial, pioneering spirit. , and nationality based on Pancasila and the 1945 Constitution of the Republic of Indonesia within the framework of the Unitary State of the Republic of Indonesia.*

One of the soft skills that students get from student organizations is civic skills, including intellectual skills and citizen participation skills which aim to form good citizens. It is clear that student organizations have long played an integral role in shaping campus life, developing student leaders, and influencing local and national politics.

The form of socialization used by student organizations in developing civic skills is to use the media to facilitate the activities they carry out [30]. The media can be organized in a way: first, materials that can be read (readable, legible), such as newspapers, magazines and others that are mass publications. Second, broadcasts such as audible radio and television and movies that can be seen and heard (audio-visual); and third, association institutions in society, such as mosques and churches that deliver sermons, and possibly through formal or informal institutions [30]. Then the student organization functions to train students to be ready to go into society. In student organizations, students are required to have the courage to express their opinions, have the courage to make decisions quickly, have the power of responsibility, and can cultivate the values of civic skills. This can be seen from its ability to criticize public policies. Students as young intellectuals must be critical of any public policies issued by the government, both on a national and local scale. Thus the knowledge and skills of citizenship are the basis for the formation of the character of citizenship. This makes it clear that in organizing students must have a character[30].

There are problems during the implementation of civic skills development activities, namely internal and external problems. For example, regarding funding, licensing, lifestyle, communication and coordination, lack of student interest, different student backgrounds, facilities, and regarding the secretariat. Another obstacle for example felt by the Student Regiment organization is related to uniforms

that have not been facilitated by the campus. All of these become significant obstacles or obstacles for a student organization. The factor that hinders activities carried out by student organizations is the obstacles that are closely related to the development of civic skills. The efforts made by student organizations in overcoming these inhibiting factors by preserving the organizational culture. For example, by creating a strong cadre system, both formally and informally, creating an agenda and work program that can attract students' interest in organizing, the urgency of organizing, the benefits of organizing, and accommodating student aspirations so that they can be directed according to their interests. This is done in a gentle, non-patronizing manner.

Further research was carried out by Yayuk Hidayah and Sunarso (2017) who examined "Mastery of Civic Skills for Student Executive Board Activists (Studies at Yogyakarta State University)" [31]. The results of these studies indicate that: (1) The role of the Yogyakarta State University Student Executive Board in improving activist civic skills is as a Partner of Yogyakarta State University, that is, being able to work together between the rector and the Yogyakarta State University Student Executive Board by being a "good" partner, providing constructive criticism and suggestions to The chancellor for the welfare of Yogyakarta State University students, as a facilitator covering aspirations, namely acting as a reservoir and channel for the aspirations of Yogyakarta State University students with the chancellor, is responsible for carrying out the Tri Darma of Higher Education, one of which is community service.

Afterwards, As a means of developing talent, namely a community organizer in the form of a group of people who work not only at the level of work program implementation, but also on issues of change that occur around them. Yogyakarta State University Student Executive Board activists can channel their interests and talents according to their fields, learn to socialize and interact in a healthy manner, increase their creativity and leadership spirit. The function of regeneration in the Student Executive Board of Yogyakarta State University is to create dynamic conditions in order to produce independent cadres in thinking, behaving, and acting, as well as being facilitators towards optimizing the role of students as intellectual and social beings. (2) Yogyakarta State University Student Executive Board program that can improve activists' civic skills includes the work program of the cabinet secretary ministry including ministerial secretarial forums, matriculating work programs, creating and monitoring picket schedules, making and managing announcement boards, monitoring boards of administrators. Barriers that arise in improving the civic skills of activists of the Yogyakarta State University Student Executive Board are internal and external obstacles. Internal obstacles include limited human resources, many work programs and minimal finance. External barriers include technical barriers and changes in social and political conditions. The efforts made by the Student Executive Board of Yogyakarta State University are systematic recruitment, prioritizing the effectiveness of work programs, establishing partnerships, activating notice boards, regular field meetings and reading the socio-political situation.

Further research on the cultivation of civic skills through organizations was also carried out by Ardiana Elsa and Eka Vidya Putra (2019) who researched "External Campus Organizations as Containers for Student Softskill Development (Case Study: Padang State University Students Participating in Campus External Organizations))" [32]. With the research subject consisting of five external organizations, namely the Islamic Student Association (HMI), the Indonesian Muslim Student Action Union (KAMMI), the Indonesian Islamic Student Association (PMII), the Indonesian National Student Movement (GMNI), and the Muhammadiyah Student Association (IMM). The results showed that external organizations can develop student soft skills such as communication skills, critical thinking, and leadership skills. The results of this study can be seen as below:

1. Student organizations collectively have the resources to develop the soft skills of their members.
2. The resources that exist in campus external organizations will develop student soft skills such as leadership, communication skills and critical thinking.

3. Five external organizations (HMI, KAMMI, PMII, IMM, GMNI) have resources to develop soft skills for their members.

From the three studies above, it can be concluded that the existence of student organizations in higher education is important in the context of student self-development, especially in instilling civic skills. Student organizations include, of course, diverse human resources (because the organization is a collection of people), natural and environmental resources, goals to be achieved, and the means or instruments used in achieving the intended objectives [30].

4. Conclusion

Based on this study, it can be concluded that student organization is a vehicle or means for students who serve as a channel of aspiration and creativity in the process of self-development, especially in the process of civic skills development. In addition, student organizations have a very large role in the development of student civic skills because in organizations, students are fostered and equipped to be ready to jump into the community. Student organizations instill civic skills through socialization as a medium of dissemination of information and select organizational activity programs that can awaken the student mindset to think critically, responsibly, and scientifically. A common obstacle faced in instilling civic skills is external and internal constraints such as licensing, funding, secretariat, co-ordination, lifestyle, lack of student interest, as well as different student backgrounds. However, student organizations have their own way to overcome the obstacles faced in instilling civic skills.

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Learning Environment Through Dance Movement

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Abstract. This article discusses dance movements that describe the environment in the Lampung area. The environment that is depicted through dance movements also contains cultural values that are transmitted to the next generation. This study uses phenomenological theory and meaning in revealing the environmental image contained in a dance movement. Data obtained by means of observation, interviews, and documentation. Some of the movements that describe the environment in Lampung traditional dance are kenui melayang, samber melayang, ngiyaw bias, and seluang mudik. The environment depicted shows that the relationship between the community and the environment is very close and can be used as an effort to preserve the environment.

Keywords: Dance, Meaning, Movement.

1 Introduction

Learning is a human activity that never stops. By learning, humans who initially did not know became aware. Learning is a process that makes humans understand something. However, not all subjects can be clearly captured by students. One of them is the field of art, especially dance. There needs to be special assistance for students to understand the dance material being studied. Dance material not only includes cognitive abilities, but also includes psychomotor and affective abilities or attitudes. These three domains will be touched by educators if they have the ability to understand dance not only its movements, but also to understand dance contextually.

A comprehensive explanation of dance is very, very necessary to understand a dance well. This will be useful for students to express dance movements, and learn the area of origin of a dance. For that an educator needs a way to understand and convey this understanding to students. This article will discuss dance originating from one of the regions, namely Lampung. However, this article does not discuss one complete dance form, but rather discusses several movements taken from several dances in the Lampung area.

Dance movements that will be discussed in this article are kenuy melayang, seluang mudik, injak lado, ngiyaw bias. These movements are movements found in the Lampung traditional dance. This movement is also a movement found in the female dance (in Lampung language it is called muli) in the Lampung area. This article attempts to describe how the Lampung people interact with their environment.

2 Discussion

A dance choreography is a series of pictures, or vivid paintings [1]. Each of these images or movements has its own contribution to a choreography. However, a dance movement can

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stand alone and tell something or a condition. Of course, this condition cannot be separated from the origin of a motion. The original purpose here is, the area that has the movement. A dance movement can describe a situation, behavior, condition of a person's soul, even the environment of an area. Likewise, only with the movements contained in the dances in the Lampung area.

The people of Lampung have their own uniqueness, especially regarding their customs. Traditional Lampung consists of the Pepadun and Saibatin customs. Each custom has its own language style. This language is also used in naming dance movements. The dance movement originating from the Lampung area, besides using the Lampung language, also describes the condition of the Lampung area. Especially the condition of the community and its environment [2].

The floating kenuy motion according to the meaning of the word itself consists of two words, namely kenui and melayang. Kenui means eagle. Hover means hovering, so that when combined, kenui melayang means a hovering hawk. Flying means to spread the wings in the sky. Things that can be taken are explained in this motion, how to visualize the dance movement depicting a hovering eagle. Representation of hovering motion by extending both arms to the side.

Another movement is seluang mudik, consisting of two words, namely seluang, which is a type of fish consumed by the people of Lampung. Then the word mudik, which means return. This movement is described by the movement of the fingers that are moved to the right, left, right, then back to the center. The word mudik can also come from the word kemudik (Lampung) which means small. Seluang fish have a small size and live in groups, are freshwater fish that are widely found in rivers in the Lampung area.

Next is injak lado, consisting of two words, namely stepping which means stepping on, then lado which means pepper. This movement is indicated by alternating leg movements. The sole of the foot consists of the part that is close to the fingers, then the part that is close to the heel. These two parts alternate stepping and then simultaneously. Describes the process of stepping on a pepper.

The last motion that will be discussed in this article is ngiyaw bias, consisting of two words, namely ngiyaw which means washing, then bias which means rice. This motion is described by hand movements and finger movements with a cleaning attitude. The cleaning attitude is the gesture of the fingers touching each other. These fingers are the middle finger, ring finger, and thumb. This movement describes the process when washing rice.

The explanation of these movements can give a real picture that the Lampung people are very, very popular with the eagle. The eagle is also sometimes analogous to the eagle. The eagle is a symbol of courage, majesty. The symbol of the Garuda bird will be encountered very often during traditional ceremonies. The eagle is also a picture of a vehicle when the traditional procession is in progress. Another illustration that can be learned from this movement is how the people of Lampung like things that are great and strong. The eagle is one of the birds that can survive for decades. Another explanation is closely related to the eagle's own habitat. The eagle needs a comfortable place to live in order to survive. A comfortable place for predatory birds like this is the forest that still provides food for bird consumption. The forest is also a safe place to survive from fellow predators themselves, as well as from human touch.

Next is the movement for seluang mudik which is a motion used to change levels. This gesture also shows that the people of Lampung are very familiar with creatures that have freshwater habitats. This fish is very often found in restaurants in Lampung that serve pindang menus. The way of life in groups is one of the factors that makes it easier for the people of Lampung to obtain these fish in large quantities. Another picture that can be captured is,

regarding the geographical Lampung where there are many rivers that have a lot of yield and can be used by the surrounding community.

The injak lado is an illustration that a plant that is commonly found in the Lampung area is pepper. This plant is one of the typical plants and is a product of the Lampung region. The abundance of these plants has made the Lampung region dub itself 'Tanoh Lado' which means ground pepper. Pepper soil can also be interpreted as a place that produces pepper. Lampung itself is one of the regions that exports pepper.

The next motion is ngiyaw bias. A movement that shows the behavior of the people of Lampung in preparing the main dish. Based on this movement, it shows that, the staple food of the people of Lampung is rice, produced from cooked rice. The process before cooking itself begins with washing the rice first. The image shown in motion is a hand motion that is performed in a circular manner. This is a visualization of the rice washing process.

Based on this explanation, a scheme for the relationship between the people of Lampung and their environment can be made as follows.

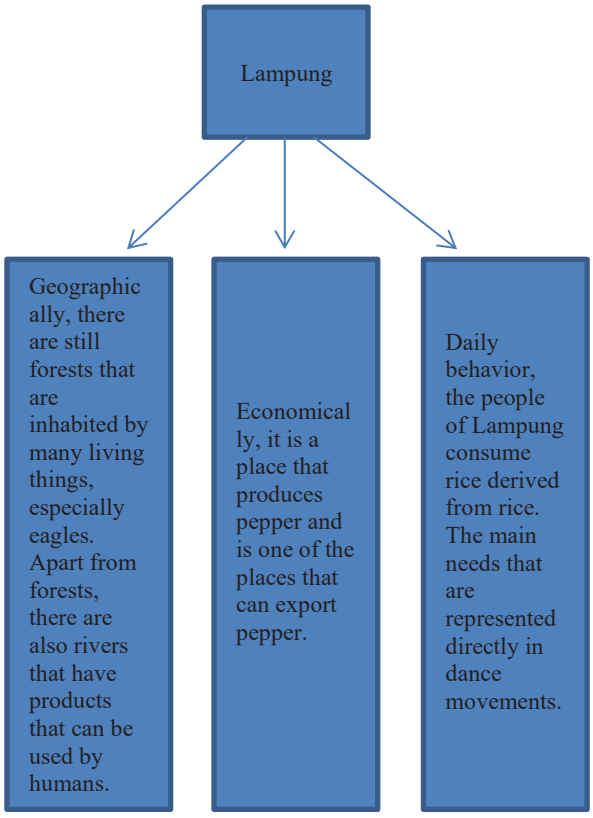

Fig. 1. Environment of Lampung in Dance Movement

Based on the Figure 1 above, it can be captured, that the learning material at school can provide broad understanding to students. This is shown from several examples of dance movements in the Lampung area. The explanation will become even wider if it is conical on a dance form. The extent of this explanation will cover the theme of the dance, the costumes used,

the properties, the floor design, and the dance accompaniment. All of these elements can be explored in detail using the method exemplified above. The explanation of this method requires an educator who has a broad knowledge.

Acknowledgments. Lampung traditional dance movements describe the environmental conditions of the people of Lampung. Some of these conditions are the living environment that describes human interactions with the surrounding living things, namely animals, bodies and humans. The picture of interactions with animals is a description of the eagle, and plants that live in the Lampung area and become a source of livelihood as well as a characteristic of the Lampung area. This characteristic can also be seen from the symbol of the Lampung area. What can be learned is that the people of Lampung show the diversity of living things in the Lampung area. This diversity lives side by side and maintains balance.

Another material that can be used as material in learning for students is the value of respecting the environment. This value is manifested by elevating the environment through aesthetic experiences. This aesthetic experience is the experience of movement contained in a dance. This aesthetic experience can cover all aspects that can be achieved in a lesson. The first is the knowledge aspect, students can find out what things are in their environment. Psychomotor aspects, students can imitate motion that describes the conditions of their environment. Affective aspects, students can be trained to respect their environment, and foster an attitude of belonging so that they can foster a sense of responsibility to protect the environment.

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Teacher's Behavior: Behavior-Specific Praise (BSP) towards Students' Speaking Performance

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Abstract. Teacher's behavior plays an essential role in influencing students' learning. One of teacher's behavior which mostly appears in a classroom is teacher's praise, especially Behavior-Specific Praise (BSP) which was firstly conducted by Brophy (1981) to praise students' specific behavior. However, the use of BSP is still debatable. Some researchers found that praise can affect students positively (Lipnevich & Smith, 2008). Others, in contrast, argued that praise leads to negative effects (Deci, Koestner, & Ryan, 1999). Therefore, these differences motivated this research. It investigated the students' positive and negative outcomes of teacher's BSP in terms of speaking performance, also, to explore the teacher's and students' responses about BSP during speaking class. A qualitative case study was used as the research design which employed three data collection techniques consisted of document analysis, questionnaires and interview. This work carried out at one of SHS in Bandar Lampung. One teacher and 30 eleventh graders were recuited as the participants. The results showed that BSP were confirmed to motivate the students to improve their speaking ability leading to the positive outcomes. While the negative sides found was that BSP statements were sometimes misunderstood by a number of students. After all, the teacher agreed that BSP statements increased the students' school-wide expectations.

Keywords: Behavior-Specific Praise (BSP), teacher's behavior, teacher's praise, speaking performance

1 Introduction

Teacher's behavior is one of the main determinants in shaping inspiration and learning for the students. Teacher's behavior surrounding interpersonal interactions may be seen as promoting or regulating discretion for the pupils.

Most educational psychologists emphasize the importance of reinforcing positive behavior or effective outcomes, and highlight teacher recognition as an especially important and beneficial form of such reinforcement, praise. Praise on academic achievement of students is an important part of the learning process, and something teachers do every day. The same cannot be said for getting praise on social activities, sadly. Recall the old adage, "The squeaky wheel gets the grease?" [1]. This saying certainly applies to classroom behavior. Teachers have several duties including the preparing of classes, the preparation of books, behavior training, clerical activities and, of course, teaching.

Generally, praise in the classroom environment has been frequently analyzed. For example, White observed that teachers' rate of praise decreased as grade level increased and Brophy presented a quantitative study of praise in his seminal work [2],[3]. Praise is used instead of criticism, as it has the extra connotation of a more positive reaction compared to a right response.

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White recorded first and second grades had higher concentrations of recognition compared to other grade levels, the lowest at 1.3 approvals per minute found in second grade.

Specifically, praise can be divided into two different categories, general and specific behavior praise (BSP). General praise involves the use of brief statements of ambiguous recognition, such as "Good Job, Elizabeth," "Way to Go," or "Nice Work, Jon." While general praise may certainly have benefits, it does not always clearly convey why the student has been recognized. BSP includes incorporating a detailed situational explanation to explain whether teachers recognize repeated behaviors and are likely expecting to occur more often in the classroom. While, example BSP statements include "Class, nice job walking peacefully into the classroom and continuing your research," "I love how you are sharing your markers with Lauren, your table mates. Way to get moving!" Or “Hunter, good job being polite by lifting your hand and waiting to be named.” These examples illustrate how BSP is more comprehensive than generic recognition, as they offer guidance to students on facets of their results.

BSP is one technique teachers should use to avoid and reduce difficult behaviors on a regular basis. Unlike general recognition, for BSP, teachers say or write the demonstrated correct conduct and whether it achieved standards or impacted academic/social performance [4]. Instead of uncontrollable variables such as intellect (e.g., "You are too smart") or skill (e.g., "You are a natural-born leader"), the student must be specifically asked what malleable element is being celebrated inside the student's control locus (e.g., "Good work preparing for this science exam, your initiative paid off").

In a specific purpose, BSP is used to give contribution to students’ academic performance. Kyoshaba states that academic performance refers to the skills and competencies students have learned in a subject or course [5]. It is essentially a measure of how well the students did on the basis of certain educational standards defined by professional educators in the various evaluation items provided for them. By the success of students in appraisal items such as papers, assessments and exams, the success of students is calculated in the classification according to the educational qualifications they have achieved. This educational requirement can be regarded as meeting national and international acceptance criteria for further studies in institutions.

Since academic performance belongs to something general, this study only focuses on students’ English speaking performance. English has been one of the mandatory subjects taught in Indonesia, from primary to university level. There are four essential macro-skills in English language teaching and learning that a person can master, one of them is speaking. Speaking is one of the most important competencies of everyday life. Each person needs to connect by communicating with others. It has now been really important as it plays a critical role in every aspect of life. People can share thoughts, views and information with others by speaking. Davies and Pearse as cited in Tuan and Mai claimed that the main objective of any English language teaching is to allow the learners to speak English correctly and effectively in the communication [6].

In speaking skill, there are many factors which can influence the students’ performance such as gender, educational background, and psychological factors. These problems might be affected by some other important factors that may come from inside or outside students-self, either related to their ability or psychology. One of the external factors is the teacher’s behavior through students’ speaking performance, especially teacher’s behavior specific praise. Teacher’s BSP might bring several advantages to students’ speaking performance.

A more basic possible advantage is that BSP provides a clear declaration of the risk between actions and strengthening. This is, teachers may recognize the particular habits they are seeking to improve in the very act of praising. Yet not everyone enjoys praise. It is rejected in theory by others. Most of these are individuals who feel learning is intrinsically worthwhile and satisfying,

at least where learners are enabled to follow their own goals at their own rate [7]-[9]. Individuals who claim that any efforts to regulate extrinsic feedback are viewed as excessive, invasive, and even dangerous.

To some extent, it has been accepted that measures of assessment such as input from teachers and appreciation about the performance of students in different fields of learning will have both positive and negative effects on the learning process.

There have been several studies that investigate the use of Behavior Specific Praise (BSP) in a classroom. Firstly, Ennnis *et al*. conducted a research dealing with Behavior-Specific Praise (BSP) [1]. She emphasizes that BSP happens when an instructor recognizes individual student's behavior and encourages the student with the intention of continuing to engage in the appropriate behavior for the appropriate response. In this article, the researcher describes a step-by-step process for all students using BSP in classrooms including those at risk of emotional and behavioral disorders. These steps can be divided into steps before, after, and after instruction.

Furthermore, Maclellan conducted a research dealing with the role of praise in motivating students [10]. A social-cognitive viewpoint suggests that motivation is complex, context-sensitive and changeable, making it even more distinct than before. Using psychological research, the research suggests that the teacher is not well supported in inspiring students by focusing on simplified and common sense understandings of the concept of praise, and that efficient praise programs are guided by target orientations of students, which can be either additive or dynamic composites of different goals and contexts.

These previous research has addressed several processes for all students using BSP in classrooms, the role of praise in motivating students, and a systematic review of teacher-delivered behavior-specific praise. However, there is a specific gap between the previous studies and the current study. Some researchers have found that feedback and praise affect students positively and improve their learning [11]. Others, in contrast, argue that feedback and praise lead to negative effects [12]. These differences illustrate the basis for the current research paper. It attempts to investigate the students' positive and negative outcomes of teacher's BSP in terms of speaking performance, also, to explore the students' responses about Behavior-Specific Praise (BSP) through their speaking performance.

Concerning the background and thesis statement above, the problems were formulated as follow:

1. In terms of students' speaking performance, what are the positive and negative outcomes of BSP?
2. What are the students' responses about BSP dealing with their speaking performance?

Based on the questions above, the objectives of the research are:

1. To investigate students' positive and negative outcomes of teacher's BSP in terms of speaking performance.
2. To find out the students' responses about BSP dealing with their speaking performance.

2 Literature Review

2.1 Concept of Teacher's Behavior

Teacher's behavior surrounding interpersonal interactions may be seen as promoting or regulating discretion for the pupil. Rosenshine and Furst reviewed a lot of studies, which had

correlated teacher's behavior with students learning gains [13]. Their conclusions are that teaching is better when the following teacher characteristics are presented. They are clarity (in teaching presentations, assignments, etc.), variability (used different instructional, methods, enthusiasm (teachers were involved), indirectness (questioning rather than lecturing, use of student ideas), task orientation, businesslike behavior (there is a purpose to activities and assignments), students' opportunity to learn material, teachers' use of structuring comments multiple levels of cognitive, and teachers' praise.

2.2 Concept of Behavior Specific Praise

BSP is one strategy teachers can use daily to prevent and reduce challenging behaviors. Unlike general praise, with BSP, educators say or write the precise behavior exhibited and how it met an expectation or affected academic/social achievement [4]. The student must be explicitly told what malleable factor within the student's locus of control is being praised (e.g., "Good job studying for this science test, your effort paid off"), rather than uncontrollable factors such as intelligence (e.g., "You're so smart") or ability (e.g., "You're a natural-born leader"). Specifically, praising effort instead of ability may help students attend to the method of tasks and be motivated by the opportunities and potential hard work may bring [14]. BSP should be sincere so if the student finds attention reinforcing the praised behavior is likely to reoccur [15]. As explained, teachers use lounges usually to various degrees, most commonly as general encouragement. Praise can be more effective when used deliberately and purposefully as positive reinforcement [3],[16]. General recognition rarely converts into enhanced on-task conduct, comprehension of mission, or faith in oneself [17].
By comparison, BSP provides students with clear success input (academic, mental, or social), makes students understand what they have performed actually well, strengthens school-wide norms, and can make socially appropriate activity more likely to continue in the future, using the principles of applied behavior analysis [3],[18],[19].

2.3 Concept of BSP through Students' Speaking Performance

There are many factors which have impact on language learning. These factors are divided into internal and external factors.

1. Internal factors
   a. Psychology

      Burns and Joyce as cited in Nunan [20], argue that psychological factors such as anxiety or shyness, lack of confidence, lack of motivation, and fear of mistakes are the factors commonly that hinder students from speaking.

   b. Language Competence

      According to Chomsky, competence is the ideal language system that enables speakers to produce and understand an infinite number" of sentences in their language, and to distinguish grammatical sentences and ungrammatical ones [21].

   c. Topical Knowledge

      Topical knowledge is defined as knowledge structures in long-term memory (Bachman & Palmer as cited in Tuan & Mai) [6]. In other words, topical knowledge is the speakers' knowledge of relevant topical information. The information that topical knowledge provides enables learners to use language with reference to the world in which they live.

2. External factors
    a. Performance conditions

        Nation & Newton, 2009 as cited in Tuan & Mai suggest four types of performance conditions include time pressure; planning, the standard of performance, and the amount of support [6].

    b. Learning environment

        In their research, Minghe & Yuan stated that "another eternal factor that affects students' oral English learning is the lacking of good language learning environment" [22]. Teachers need to make a good environment to the students to support their speaking performance.

Regarding the factors that can affect the students' speaking performance, students' psychology (internal factor) and learning environment (external factor) might belong to Behavior-Specific Praise (BSP) activity. It stands to reason why BSP can affect both students' psychology and learning environment since BSP is coming from the teacher and addressed to the students. If the teacher uses BSP towards students' speaking performance, the students will psychologically feel the attention from the teacher and the learning environment will be more comfortable.

3 Research Methodology

As the purpose of this study was to find out the positive and negative outcomes of BSP in students' speaking performance and investigate their responses about BSP, a qualitative descriptive study was used as the design for this study to give detail description of collected data [23].

This study employed qualitative purposeful sampling in which the participants were selected intentionally to understand the current phenomena. The researcher chose the qualitative method because one of the instruments of this study was an open-ended questionnaire. As it was stated by Cresswell, that qualitative data tends to be open-ended without predetermined responses [24].

This study was conducted online since the phenomena of COVID-19 pandemic is increased day by day. The research site was one of senior high schools in Bandar Lampung with one teacher and 30 students, especially the eleventh graders class.

For the sake of data collecting technique and instruments, the author used document analysis, open-ended questionnaires, close-ended questionnaires and interview. Since BSP can be provided in writing, the author used screenshots of the teacher's comments on students' speaking performance to identify the BSP statements.

After that, a close-ended and open-ended questionnaires were administered in order to investigate the teacher's and students' responses during the learning process through Behavior-Specific Praise (BSP). There were at least 10 questions to the teacher and 17 questions administered to the students in the close-ended and open-ended questionnaires related to Behavior-Specific Praise (BSP) application in the classroom.

Table 1. The Close-Ended Questionnaires to The Students

NO	QUESTIONS	YES	NO
1	When I am in speaking class, I participate in class discussions.		
2	When I am in speaking class, I work as hard as I can.		
3	When I am in speaking class, I pretend I can rather than being irresponsible.		
4	When I am in speaking class, I do pay attention to my friend's performance.		
5	When I am in speaking class, I do listen to what my friends talk about in front of the class.		
6	When I am in speaking class, I will do my best to my performance		
7	When I am in speaking class, I feel afraid when it is my floor to perform.		
8	When I am in speaking class, I am not confident about my performance.		
9	When I am in speaking class, I do not really concern about my performance, so I do not do my best.		
10	When I am in speaking class, I frequently feel bored.		

Table 2. The Open-Ended Questionnaires to The Students

NO	QUESTIONS
1	In speaking class, when the teacher praises your performance, what do you feel?
2	In speaking class, do you think that you have properly participated? Why?
3	In speaking class, do you feel motivated to participate properly? Why?
4	In speaking class, could you think of your teacher's positive words about your performance? What are they?
5	In speaking class, when the teacher praises you, do you concern about it? What are your favorite praise statements?
6	Are those praise statements bringing positive impacts to your next performance? Why?
7	Are those praise statements making you stop trying to the next performance because you think that you have already been enough? Why?

Table 3. The Open-Ended Questionnaires to The Teacher

NO	QUESTIONS
1	Do you think it is important to know the underlying cause of a student's misbehavior to effectively intervene during speaking class?
2	Do you think it is best to ignore a student that seems to misbehave because of the attention the student receives during speaking class?
3	Do you think giving students rewards for completing assignments is bad because it decreases their intrinsic motivation to do their work during speaking class?
4	Do you think removing a privilege is a good way to get off-task students to do their work during speaking class?
5	Do you think it is inappropriate to provide rewards for good behavior because students should know that they are expected to follow the rules during speaking class?
6	Do you think it is too time consuming to develop and dispense rewards for your students' good behavior during speaking class?
7	Do you praise your students' good behaviors often during speaking class? And how is it useful?
8	Do you send disruptive students out of the classroom (e.g., to the office, in the hallway) often during speaking class? How is it useful? And how is it useful?
9	Do you provide classwide rewards when the class as a whole demonstrates good behavior (e.g., extra recess time, pizza party) often during speaking class? How is it useful?
10	Do you provide set up individualized reward programs to encourage good behavior in students who repeatedly misbehave often during speaking class? How is it useful?

Lastly, an interview of students will be conducted to sharpen and strengthen the teacher's and students' answers in the questionnaires. That is to say, that, an interview in this case is as a triangulation of the questionnaires.

4 Results and Discussions

4.1 Results

This chapter presents the results of the author's current research focused on the following research questions: 1) in terms of students' speaking performance, what are the positive and negative outcomes of BSP? and 2) what are the students' and teacher's responses about BSP dealing with the students' speaking performance?

A qualitative data were collected using a close-ended questionnaires, an open-ended questionnaires, an interview to cross validating the data, and screenshots of teacher's comments on students' speaking performance. After analyzing the data, the results were found and decided into three parts as well as the questionnaires given. The findings will be further discussed below.

Results of Students' Open-Ended Questionnaires

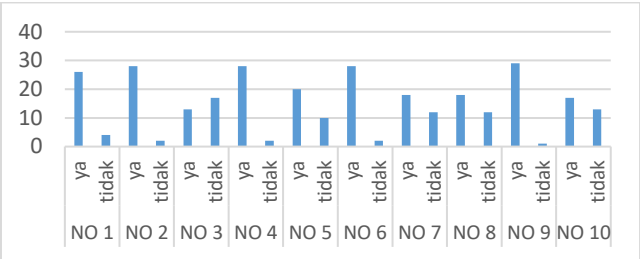

Fig 1. The Results of Having Good Behavior

An additional explanation about the questions is as follows:

The above questions are about the students' behavior during speaking class. Those questions are adapted from Soto [25]. On her findings, Soto states that knowing every students' behavior is essential to build the engagement of the students during the class. By knowing the students' tendencies—whether they are more yess or more nos—, the teacher will be more careful in implementing the praise in the class.

The author grouped the questions into smaller parts since the concept of several questions were similar to each other. It was started from question number 1, 2, and 4. There were at least 25 students answered yes in responding these questions. It shows that most of the students tried to contribute well in speaking class to get more understanding about what is being discussed during the process of learning. The author assumes that their tendencies in engaging the class during speaking learning process are referred to a good behavior.

In terms of question number 3, there are only 13 students answered yes and the rest answered no. From this question, the students seemed to be more honest with their behavior—even if the comparison was not significant—. Those 13 students preferred being assumed that they understood to being called irresponsible. Another assumption, those students did not want to get more questions from the teacher since they had the thought of being irresponsible will be getting more and more questions from the teacher.

Question number 5 got 20 yess and only got 10 nos. It supports the first three questions that the students engage well in the classroom during speaking class. Harmony with question number 5, question number 6 only got 10 nos. In this case, the students would do an effort to make their performance good. This is admitted to a good behavior the students have during speaking class.

Questions number 7 and 8 planned to find out the students' confidence in speaking class. There were about 18 students answered yes to the question number 7, and 19 students to the question number 8. This indicates that speaking skill was that difficult so the students were afraid of being irresponsible in joining this class.

Next question was about the students' responsibility behavior of their learning process in terms of speaking class. There were 8 students answered yes and the rest answered no. These 8 students indicate that they are lacking of responsibility of their learning process. This refers to misbehave.

The last question was about the students' behavior facing the boredom during the speaking class. 17 students answered yes and 13 students answered no. The author assumes that this happens since speaking class was difficult or it can be because the teacher was not fully engage the class.

Results of Students' Open-Ended Questionnaires. The questions are directed to the students to find out their perceptions of Behavior-Specific Praise (BSP). Consistent with the close-ended questionnaires, this checklist was also adapted from Soto [25]. She used open-ended questionnaires to analyze the students' engagement of Behavior-Specific Praise (BSP).

For question number 1, most of the students answered the questions with typically captivated expression. They tend to answer "I feel happy for the reinforcement" or "I am thankful for the praise because it motivates me". This indicates that praise gave affirmative contribution to the students' speaking performance.

Questions number 2 and number 3 were aimed at finding students' reason behind their activeness during the speaking class. The most answers found was that the students had assumptions that they had participated enough during speaking class because they needed to expand their knowledge more and more. Additionally, the teacher's engagement in class also became the mental analysis behind their contribution. Since the teacher rewarded them for their good behavior, they would become motivated to contribute their presence. However, several students answered the opposite of the first findings. They tended to contribute less in speaking class since the class had been under the leadership of smarter people. Whenever they tried to participate, the anwers were rarely true and they did not get the reward for it. It causes the lack of confidence of them in the next learning process.

Questions number 4 and number 5 were designed to see the teacher's awareness of using Behavior-Specific Praise (BSP), and to find out the students' assurance in remembering the teacher's positive words or praise. In terms of question number 4, most students answered 'yes', and the reason behind it is because the positive statements from the teacher could bring them beliefs that they could do it. Furthermore, in question number 5, their answers were very variative. Some of them answered 1)"Good job, (mentioning their names), you have a good pronunciation.", 2) "That was so cool, (mentioning their names), you talked about your part fluently". In this case, the students tended to remember the positive words given in specific behavior they do. Nevertheless, several students answered that they only remembered they were being praised or appreciated, but they did not remember the words of the praise given.

Question number 6 indicates the positive sides of Behavior-Specific Praise (BSP). The answers were also variative. Students said that the praise could motivate them in different context. Some of them would be motivated if the praise was given by the teacher directly after they perform, this happens because they likely to take a note of the teacher's feedback and they also still remember every details of their performance. However, some of them had the contrary perception of receiving the praise. They said if the teacher wrote it down, it would make them more aware of their performance. This indicates that some of the students' learning style are auditory and some of them are visual. Furthermore, another reason behind BSP being motivated was because they feel captivated about the praise the teacher gave. It also drew the assumptions in their mind that the teacher actually cared of them.

Contrary to question number 6, question number 7 was assisted to see the negative sides of Behavior-Specific Praise (BSP). There were at least 10 students said that Behavior-Specific Praise (BSP) improved their confidence so they feel enough about their speaking ability.

Proximately, those were the findings of the students' perception of Behavior-Specific Praise (BSP), the further explanation and interpretation of the findings will be more discussed in discussions chapter.

Results of The Teacher's Open-Ended Questionnaires. This open-ended questionnaires is adapted from Stromlid [26]. She conducted a research about the effects of Behavior-Specific Praise (BSP) statements and used three teachers to become the participants. The questions given

to the teachers are about their behavior in using Behavior-Specific Praise (BSP) in the class. The author gave several modifications to the questionnaires since this study focused on speaking class.

Questions number 1 was aimed at finding whether the teacher thinks it is necessary to know the root cause of a student's misconduct in order to intervene effectively during speaking class. Question number 2 was directed to know the teacher's perception whetеher it is better to disregard a student who seems to be misbehaving because of the student's attention. Question number 3 was about finding the perception whether it is wrong to give students incentives for completing assignments because it reduces their intrinsic motivation for doing their job. Question number 4 was to find out whether withdrawing a right is a smart way to get students to do their job off-task. Question number 5 was to clarify whether offering incentives for good conduct is unfair, because students will know they are supposed to obey the rules. Question number 6 was to make it clear whether developing and dispensing rewards for the good behavior of the students is too time consuming.

Next questions are about finding out the usefulness of Behavior-Specific Praise (BSP) implemented by the teacher during speaking class. Those questions were aimed at finding how often the teacher specifically praises the students's behavior, how often the teacher sends disruptive students out of the classroom, how often the teacher provides classwide rewards, and how often the teacher provides set up individualized reward programs to encourage good behavior during speaking class.

Findings of The Students' Interview

After administering the questionnaires, the author interviewed the students to get more valid data. The author did not interview all of the students since it would be time consuming. The author selected the students who had refracted and blurred answers between the first and the second questionnaires.

There was a unique case found during the interview process. One of the students answered 'yes' on number 9 in the first questionnaires, it indicates that he did not really care about his performance during the speaking class. However, he gave the answer which refers to a good behavior when he answered number 2 in the second questionnaires. He said that he had participated well in the classroom during the speaking class. When the author asked about those contrary ideas between his answers of first and second questions, here is the answer of him:

Author: Why do you feel you do not really care about your performance while you think that you had participated well during the speaking class? Those are very contrast.
The student: Ya, I think my performance does not really matter if I participate well during the class. I mean participating here is I am joining the class, sitting, and paying attention to the conversation being talked by my friends.

Another case I found when interviewing the students was there were several students remembered that the teacher often praised them for their performance, but then they forget about the specific complete sentence the teacher said to them.

The last case found when clarifying the data using interview was that the students feel that they get more motivated to the next performance after being given the specific praise from the teacher. It made them afraid to disappoint the teacher, so they tended to learn more and more to get better performance. However, there were several students who were enough by receiving the praise from the teacher. They thought that the praise means the satisfying expression from

the teacher to the students' performance. Instead of being motivated, they tended to feel afraid if they change the style of their performance will downgrade them.

Findings of The Teacher's Interview

In terms of interviewing the teacher, the author used similar questions to get more valid answers. Since questions number 1 to 6 were only answered by stating "Yes, I do", the author asked more details about it.

During the interview process, the teacher gave complete answers to the questions given by the author. The teacher said that it is necessary to know the root cause of a student's misconduct in order to intervene effectively during speaking class since transforming behavior from bad to good was not easy and it influenced the basic behavior the students have. Giving reward was also important according to the teacher. She believed that rewarding the students would make them find it fun to join the speaking class. Giving the students rewards also made them believe that the teacher actually cared and appreciated them so well.

Regarding the teacher, Behavior-Specific Praise (BSP) statements were the most important praise among other praises since Behavior-Specific Praise (BSP) suggests us to mention the specific behavior the students have done. By receiving BSP statements, students will be more engaged in speaking class because they know exactly what they did.

Nevertheless, after analyzing the comments of the teacher to the students, the teacher still missed several statements. In that case, the teacher did not use specific information about the students' behavior which turns to general praise. The further evidence and interpretations would be discussed in the next chapter.

4.2 Discussions

Since we live in the pandemic era of COVID-19, many planned activities are postponed or even cancelled. One of the activities which cannot be accomplished is conducting this research in the real classroom. COVID-19 cases in Indonesia being increased day by day cause online learning in this country extended. Considering the complete proposal of this journal, there was nothing the author can do but conducting this research with a little modification. Since Behavior-Specific Praise (BSP) is a flexible praise which can be delivered both orally and in writing [27], the author decided to analyze the teacher's Behavior-Specific Praise (BSP) by identifying the teacher's comments on the students' speaking performance.

Essentially, Behavior-Specific Praise (BSP) has a wide variety of applications and can be used in any environment, but the author concentrated on the use in classroom for this research. In accordance with this, Lane, Menzies, Ennis, & Oakes provides guidance on how to determine the quality of care, social legitimacy and success of pupils by using BSP in educational environments or as part of academic exercises [15]. The first step is identifying behaviors to reinforce, from the interview with the teacher, this step was the basis of Behavior-Specific Praise (BSP).

The teacher: "I always identify the students' behavior before praising them. This happens not only in speaking class but also happens in every class. This is essential thing to do since BSP concerns about behavior."

The teacher also emphasized that identifying the students' behavior before praising them has become her habit during teaching and learning process. Besides, after identifying the students' behavior, it would be followed up by practicing and evaluating. And the last step the

teacher would do was seeking the students' input. In this step, the teacher will observe the students' responses about her Behavior-Specific Praise (BSP). Since the input from the students often meets her expectation, the teacher used Behavior-Specific Praise (BSP) as her reward to the students with good behavior during learning process. This supports Brophy's [3] and Thompson's et al. [16] perception about Behavior-Specific Praise (BSP). They assume that praise can be more effective when used deliberately and purposefully as positive reinforcement. As Hattie and Timperly also state that general recognition rarely converts into enhanced on-task conduct, comprehension of mission, or faith in oneself [17].

After analyzing the teacher's Behavior-Specific Praise (BSP), the author found there were at least 20 students who were being given a specific praise about their behavior of speaking performance. One of them happened in Alwan's case. The following picture is the evidence.

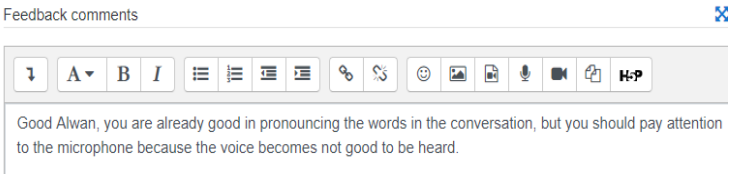

Fig. 2. The BSP Statement of The Teacher to Alwan

As already mentioned by Kennedy & Jolivette, with BSP, educators say or write the precise behavior exhibited and how it met an expectation or affected academic/social achievement [4]. In this case besides giving the student Behavior-Specific Praise (BSP), the teacher also provided feedback to the student in order to make the student improve her ability in the next performance. The student, named Alwan, was interviewed and asked about what he felt about this comment. Alwan said that this comment indicated that the teacher truly cared of him. The teacher paid attention to every statements he dropped and gave him specific praise and feedback. The specific praise made him motivated to at least maintain his pronunciation well.

Another example of Behavior-Specific Praise (BSP) given by the teacher to the students happened in Kesya's and Fahreza's case. The following is the screenshot evidence of the comments.

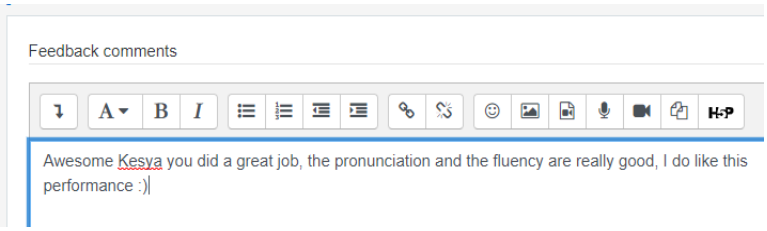

Fig. 3. The BSP Statement of The Teacher to Kesya

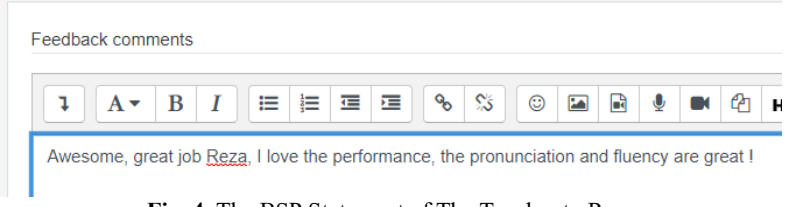

Fig. 4. The BSP Statement of The Teacher to Reza

Without listening to the real voice of the teacher, we all have already known that the expression of the teacher showed satisfying expression of both Kesya's and Fahreza's performance. Furthermore, the teacher used smiling emoticon in Kesya's case as Mehrabian and Williams found that when directed to be more convincing, communicators used more facial expression [28]. One focuses on recipients: In a therapy environment greater smiling is correlated with more persuasiveness [29].

Nevertheless, the author found that among 30 students being given the comments, the teacher missed Behavior-Specific Praise (BSP) statements nine times. The evidence is as follows.

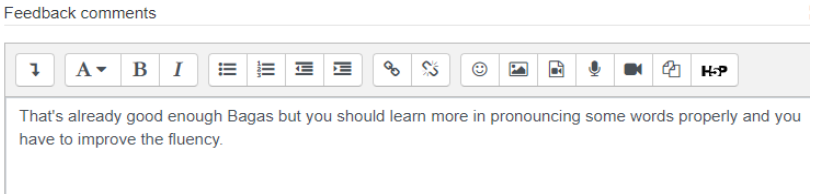

Fig. 5. The BSP Statement of The Teacher to Bagas

In that case, the teacher only stated "That's already good enough Bagas" then directly followed up by the feedback without giving any specific statements about Bagas's good enough behavior. The author then interviewed Bagas about what he felt about the comments from the teacher. He said that it was actually confusing when the teacher only said "Good job" because he hoped that he knew what good behaviors that met the teacher's expectation. By only stating that, it turns the praise into general praise. As Brophy states that general praise involves the use of brief statements of ambiguous recognition, such as "Good Job, Elizabeth," "Way to Go," or "Nice Work, Jon." While general praise may certainly have benefits, it does not always clearly convey why the student has been recognized [3].

Another similar case happened in Dian's case. In this case, the teacher did not even state the praise. The teacher directly gave a motivational feedback to the student. It can be seen in the picture below.

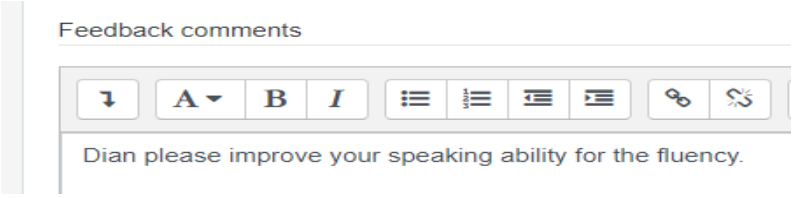

Fig. 5. The BSP Statement of The Teacher to Dian

Gable, Hester, Rock & Hughes have already mentioned that praise consists of verbal or written statements that acknowledge desired student behavior and are manifested in different ways, including making positive statements about a person or an idea that a person has come up with publicly or privately [30]. Therefore, in reference to this, the comments being given to Dian did not provide any praise statements especially Behavior-Specific Praise (BSP). Dian then was interviewed due to this comment.

Dian: "I thought I have already done my best, but there was no praise at all directed to me. But that's okay, maybe Im just as bad as that."

The expression of Dian showed letdown situation and she felt disappointed that she did not get any praise at all. Whereas, increasing the constructive attention we offer to behaviors we want, and reducing the negative attention we offer to behaviors we do not like, leads to more acceptable behavior and less unacceptable behavior for students. Teachers' support for students with attention-seeking problem behaviors is especially successful.
Due to the inconsistency of the use of Behavior-Specific Praise (BSP), the teacher then again was asked about the reason behind not giving Behavior-Specific Praise (BSP) to these particular students. Here is the answer of the teacher.

The teacher: "I tried my best to give the students Behavior-Specific Praise (BSP), but I may sometimes do not find specific good behavior of them. For example, when the students do not meet my expectation at all—seen from the pronunciation, fluency, and accuracy—, but they tried their best in performing, I will be still giving them praise even if it is not specific."

From this statement, the author assumes that the teacher was an appreciative teacher. This also indicates that Behavior-Specific Praise (BSP) would be more beneficial when the students show their good behavior. The teacher who uses this kind of praise usually a genuine teacher since this praise concerns about the students' specific good behavior. In other words, if the students get Behavior-Specific Praise (BSP) as the reward of their performance, it means that they truly show their good behavior. Believe it or no, specifying someone's good behavior is doubtlessly difficult when they do not show any good behavior at all. People usually use general praise to appreciate someone's behavior in this case. As mentioned by Floress and Jenkins, general praise is any statement of praise (in accordance with the previously provided operational definitions) [31].

Besides, seen from the open-ended questionnaires, the teacher tends to give extra reward to the students who have good behaviors both classwide and individualized rewards.

The teacher: "Sometimes I give extra recess time if the students show good behavior during the learning process. The advantage that I get from applying this reward is they always follow the rules of the learning process well."

This supports the theory of Cavanaugh [32], Chalk & Bizo [33], and Sutherland, Wehby, & Copeland [27] who state that praise will provide advantages for both students and teachers, cited as one of the most effective methods to mitigate disruptive behavior and encourage prosocial activities. Benefits for teachers who rewarded students more frequently included lower levels of mental fatigue and a greater sense of success in handling actions in classrooms [34]. All teachers should be prepared to communicate with classroom students with low-intensity, effective, easy-to-use strategies when difficult behaviors are initially conducive to corrective interventions before significant deficits in cognitive, behavioral, or social skills arise [35].

Fairly, using Behavior-Specific Praise (BSP) brings several points of view from the students as stated on the open-ended questionnaires and the interview. In terms of the positive and negative sides, Behavior-Specific Praise (BSP) brought plus and minus to the students' learning process during speaking class. Most of the students will be getting captivated feeling when receiving Behavior-Specific Praise (BSP) from the teacher. Most of the students also always remember the teacher's BSP statements because they feel they were being cared especially when the teacher praised them using their names. Harmer states that a good teacher is a teacher who knows and mentions the students' names [36].

From the interview, the students say that BSP can give effect to their daily lives. This supports the theory of Weaver & Watson that state BSP can easily be incorporated into any instructional environment [14]. For examples, students will be appreciated when they meet foreigners who ask about the direction or when they are being in the place which need them to talk English well.

Additionally, by receiving Behavior-Specific Praise (BSP) from the teacher during speaking class, most of the students felt more motivated to increase their performance or at least maintain it. This happens since the students did not want to disappoint the teacher. from the questionnaires also found that they always tried their best in performing during speaking class. The contribution they did also became the consideration of the teacher to praise their behavior specifically. This confirms the theory of Lane, Menzies, et al. who state that Behavior-Specific Praise (BSP) should be sincere so if the student finds attention reinforcing the praised behavior is likely to reoccur [15].

Nevertheless, several students sometimes misunderstood the BSP statements. This occurred in the case of the students who have average intelligence in speaking skill. When they were being praised by the teacher, they thought that praise meant satisfying expression from the teacher so that they were afraid of being changed. They tend to maintain their performance instead of improving. Even if this case only happens in five students, this still confirms Deci et al. who claim that rewards have pervasive negative effects on people's intrinsic motivation [12].

Shortly, even though Behavior-Specific Praise (BSP) had positive and negative sides regarding this study, the tendency of using Behavior-Specific Praise (BSP) leads more to the positive sides since there were 25 students agreed that BSP statements bring tem motivation to improve their speaking skill.

5 Conclusion and Suggestion

5.1 Conclusion

In line with the objectives of the research which were about finding out the positive and the negative sides of Behavior-Specific Praise (BSP) and investigating the teacher's and the students' perceptions about Behavior-Specific Praise (BSP), there were several points found to be concluded in this study such as:

Firstly, using Behavior-Specific Praise (BSP) gives the students many perspectives as described on the open-ended questionnaires and interview. When receiving Behavior-Specific Praise (BSP) from the teacher, most students would get a captivated feeling. The students say that BSP will give impact to their daily lives, motivate them to improve their speaking ability, and increase their speaking ability.

On the contrary, the BSP statements were sometimes misunderstood by a number of students. That has occurred in the case of the students with average speaking ability. When the teacher praised them, they assumed that praise meant honoring the teacher's meaning and they feared they would be modified. Instead of improving they seem to keep their results.

Lastly, the teacher agreed that BSP statements provide students consistent performance indicators (academic, mental or social), help students realize what they have already done well, improve school-wide expectations, and may make socially acceptable behaviors more likely to happen in the future.

5.2 Suggestion

Since this study was conducted during COVID-19 pandemic that made the author only able to analyze the comments of students' speaking performance and administer questionnaires as the instruments, the further researcher is suggested to make larger research about similar topic in the real classroom to get more unpredictable results since being in the classroom means the researcher will be able to directly observe the movements of the students during teaching and learning process.

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Learning of Sepak Sila Technique Based Video For Sepak Takraw Course

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Abstract. This study aims to create a learning model of basic techniques of sila based on video of the sepak takraw course for Physical Education students of the Faculty of Teacher Training and Education, Universitas Sriwijaya. The development procedure used in this study used the research and Development method. The research subjects were physical education students. Based on the results of the stage I media expert validation, the percentage was 73.2. The results of the validation of sepak takraw for the first stage of obtained a percentage of 71.4 in the fairly decent category. Based on the results of expert validation, the average percentage of the assessment was 72.3. The implication of this research is that the research product is quite feasible to use.

Keywords: Sepak Sila, Sepak Takraw Learning, Video

1 Introduction

One of the basic techniques of Sepak Takraw that must be mastered by students of the faculty of teacher training and education at Universitas Sriwijaya is the technique of sepak sila. Sepak sila is used to serve and pass the ball to the opposing side. Saputro & Supriyadi, sepak sila is the most basic technique that must be mastered. This is because most of the sepaktakraw games use the technique of sepak sila to receive the ball and pass the ball [1]. Qoryaningtyas, besides being a basic technique in the Sepaktakraw game, soccer sila is also the key to playing the game, including passing for smashes, passing and serving, and if the technique of sila football is well mastered it will be easier to receive the ball from opponent attacks [2].

Lecture material in the physical education study program of the Faculty of Teacher Training and Education, Universitas Sriwijaya, namely the basic skills of Sepaktakraw with a weight of 2 credits. Based on observations in the field, the second semester students of the physical education and health study program have difficulty understanding and practicing the material about basic techniques of sepak sila in the sepak takraw course. At the time of practice students have not mastered the basic techniques of sepaksila, and when giving material in class only provides material that is theoretical, the learning model in the form of videos is not given in detail. This causes learning to be monotonous and students' understanding of the material is not very clear.

Achievement of student learning outcomes is influenced by choosing the right learning model. Models for learning in the application of learning must be implemented in accordance with the needs and characteristics of students. Aryanti., Victorian, and Yusfi, choosing the right learning technique is needed by a teacher. It aims to improve student learning outcomes [3]. According to Fuad., Zubaidah., Mahanal., & Suarsini, the main factor determined the increase in the quality of teaching in schools is the needs and interests of teachers during implementation, innovative models in teaching. The main factor that determines the improvement in the quality of teaching in schools is the needs and interests of teachers when implementing innovative learning models in teaching [4]. The relevant research by Faizin shows that there are differences in the

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results of learning football with the application of using a learning model, namely the cooperative Student Teams Achievement Division (STAD) type in learning football sila elementary Pademonegoro class V [5]. Nur et al. in his research, it shows that there is an effect of the direct learning model on the mastery of the Sepak Takraw technique with an increase of 61.02%. There is also the influence of the cooperative learning model on the basic techniques of Sepak Takraw with an increase of 46.43%. However, the direct learning model is more effective in mastering the basic techniques of Sepak Takraw than the cooperative learning model, with a post-test mean difference of 2.889 [6].

Choosing the right learning model for students is believed to be able to help convey messages correctly, effectively, efficiently, can create and enrich learning experiences, be able to present a picture of an event as close or real as possible, and be able to increase student activity and skills. This is so that the learning objectives can be achieved properly. Variations in the learning model can use video to make understanding easier for students. The use of video-based sepak sila learning models for physical education students is needed. This aims to achieve learning objectives. Daryanto, Media Video aims to help the learning process be better for mass learning, individually or in groups. Mass learning, the benefits of video media are very real. Perez, Video a is used for teachers to reflect and train. Therefore, video analysis can support one's reflection and teaching can be improved [7].

Based on the problems that exist in the field, the researchers are interested in conducting research on the Sepak Sila Technique Learning Model Based on the Video Course of Sepak Takraw.

2 Method

This research is a research and development research. These steps were adapted into the following for design research and development procedures:

a. Information gathering in the field

Literature review and field studies are carried out first at this stage. Learning is carried out by tracing the learning model literature, basic techniques of precepts, learning approaches using video, and science, technology, engineering and mathematics (STEM). Literature in the form of journals, research results, and football handbooks.

b. Analyze the information that has been collected

Needs analysis is carried out by studying the available resources in the study program which is planned to be a research site in the Faculty of Teacher Training and Education, Universitas Sriwijaya. Needs analysis in the soccer precepts learning model in the course Sepak Takraw.

c. Early product development (Draft Model)

The third stage is the making of the initial draft of the product in the form of a video-based basic technique of learning model, after the next analysis process is the product stage that can be useful and help lecturers in learning and learning activities.

(a) Expert Validation

The fourth stage of Expert Validation, before a small-scale trial is carried out on the initial product, the product must receive validation from material experts, namely: (a) Sepak takraw learning expert and (b) media expert. The validation process can get input on the initial product.

The eligibility categories according to Arikunto [8] are:

Table 1. Eligibility Categories

Score in percentage	Eligibility Category
<40%	Not good / unworthy
40%-55%	Not Good / Not Feasible
56%-75%	Good Enough / Decent Enough
76%-100%	Good / Worth it

3 Results and Discussion

The purpose of this study was to create a model for learning basic techniques of sila based on video of the sepak takraw course for students of the unsri faculty of physical education. The research product was in the form of a video-based learning model of basic soccer techniques.

3.1 Results

Research learning of sepak sila technique based video for sepak takraw course is validated by experts in their fields, namely a media expert, an expert on football material.

a.The Results of Media Expert's Validation

Table 2. Results of the Media Expert Validation Stage I

Code	Σ	Score Maximum	(%)	Category
APB	41	56	73.2	Decent enough

Percentage = Total/Score Maximum
= 41/56X100
= 73.2

The first stage of validation obtained a percentage of 73.2 so it was stated that according to the media expert, the category was "quite feasible".

b. The Results of Sepak Takraw Expert's Validation

Table 3. Validation Results of Sepak Takraw Game Expert Stage I

No	Code	Σ	Score Maximum	%	Category
1	APB	20	28	71.4	Decent enough

Percentage = Total/Score Maximum
= 20/28X100
= **71.4**

The first stage of validation obtained a percentage of 71.4 so that it can be stated that according to the Sepak Takraw expert, the video-based soccer learning model is in the “quite feasible” category.

c.The Average Percentage Result of the Assessment

Table 4. The Average Percentage Result of the Assessment

No	Validation	Results
1	Media Expert's	73.2
2	Sepak Takraw Game Expert	71.4
3	Average Percentage Result	**72.3**

Based on the results of the 2 experts in stage I the average percentage was 72.3. So, the research product in the form of a video-based sepak sila learning model is quite feasible to be used in learning Sepak Takraw.

3.2 Discussion

Based on the results of the validation by media experts and sepak takraw game experts, the average percentage was 72.3. This shows that the video-based sepak sila learning model is quite feasible to use in learning sepak takraw. The research product in the form of a video-based learning model with implementation instructions and the target of students was correct. Roche & Gal-Petitfaux, in their research shows the potential effects of using 360° video in teacher

education. The two main results that can be seen are: 1) The use of 360° videos allows the pre-service teacher to live an immersive experience. 2) The use of 360 ° video must be used with a wide-angle or point of view to understand the situation in depth [9]. Semarayasa revealed that the use of video is used in the learning process because it can provide more space for students to become independent learning and improve their independent learning abilities. In addition, it can assist students in achieving maximum competencies and skills. Through videos, they can develop awareness to assess strengths and weaknesses. These useful insights are provided not only for the students themselves, but also for the teachers / trainers [10]. Major, a consistent finding is that video is effective when used as part of teacher professional development. Since studies largely use thematic qualitative analysis, however, this consensus needs further examination [11].

Models for learning can have a positive impact on students in learning. The learning model using video can provide student learning motivation and improve learning outcomes. Therefore, the video-based football learning model can be used for learning Sepak Takraw.

4 Conclusion

Learning using video can provide good benefits for students in understanding the learning material, namely the soccer precepts technique. The results of the stage I media expert validation, the percentage was 73.2. The results of the validation of sepak takraw for the first stage of obtained a percentage of 71.4 in the fairly decent category. Based on the results of expert validation, the average percentage of the assessment was 72.3. The implication of this research is that the research product is quite feasible to use.

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Distance Teaching of French Language for Special Purpose in an Islamic High School

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Abstract. Errors in various communication aspects can arise in learning foreign languages due to the difference in language systems. Additionally, the way and time devoted to learning can affect the results. The educational basic standards and competencies of A1 French in MAN2 Kota Bogor, a madrasa, were difficult to achieve with only 45 minutes of lessons/week when added to their 2 x 45 minutes/week of Arabic, English, Indonesian and Sundanese lessons. Furthermore, Social Restrictions due to COVID-19 made the task even more challenging. Hasanah & Saefullah in the same environment but with 2x45 minutes of study time also found that it was difficult to achieve the targets only with time extension (2017). Based on other research studying foreign language learning for specific purposes, foreign language distance-learning and motivation of foreign language learners through technology use, we applied teaching French for specific purposes with distance learning using several technologies. This article presents a distance-teaching of French for the specific purpose of tour guiding to achieve A1. This qualitative study was conducted with 15 year-XI students during school holidays using Powerpoint, WAG, and Google Meet for 12 days @ 2 hours/day. The results show that technology use with clear learning objectives motivate learners to reach their teaching targets.

Keywords: Teaching French as foreign language (FOS), Madrasah Aliyah (Islamic High School), learning French through FOS, language distance teaching technology.

1 Introduction

The COVID-19 pandemic has given severe sectoral impacts globally, including the education sector. Since mid-March 2020, the Government of Indonesia has issued a decree, namely the Circular Letter Number 4 of 2020 by the Ministry of Education and Culture (MoEC), on the application of distance teaching (Pembelajaran Jarak Jauh or PJJ) in Indonesia's educational system. Distance teaching has been implemented at all educational levels, from early childhood education, kindergarten or preschool education, elementary school, middle school, academic, vocational, and Islamic high schools, to higher education. Implementing distance teaching is a challenge in itself for both teachers and students because this method requires them to be proficient in technology. It is undeniable that in practice, as presented by Digtyar et al. [1], distance teaching for foreign language faces various problems, such as technology-related problems with the gadgets used which can affect the ability of teachers to deliver the teaching content effectively, especially to a non-foreign language specialized school like MAN 2 Kota Bogor.

Madrasah Aliyah Negeri (MAN) 2 Kota Bogor is an Islamic high school or Madrasa, located in the district of Bogor Timur, Kota Bogor [2]. Established in 1950, MAN 2 Kota Bogor is one of the three schools in Bogor that teaches French as one of the local content subjects

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(muatan lokal or mulok) which is compulsory for all students from freshman to senior year. This school has been aiming to arrange the French language teaching curriculum in accordance with the CECRL or Cadre Européen Commun de Référence pour les Langues1 with the target of A1 proficiency. However, based upon the information given by the French teacher in MAN 2 Kota Bogor, the school is facing an obstacle in French teaching because of insufficient study time. French classes are only conducted once a week, @45minutes each session. Meanwhile, to achieve the target of A1 proficiency by the CECRL curriculum, learners must conduct 120 hours in French learning [3]. A1 is the beginner for language proficiency. According to the CECRL and CIEP Delf Dalf book [4], at this level, the linguistic performance in language production for both oral (Production Orale) and written (Production Écrite), learners are expected to be able to comprehend and utilize common everyday expressions and basic phrases aimed at the satisfaction of needs of a concrete type and also able to describe a person or an object with a simple phrase. In further detail, learners are expected to possess the ability to introduce themselves and others, as well as asking and answering questions related to their personal details such as their domicile, affiliation, and possessions. Hence, learners should be able to communicate easily with the interlocutor that speaks slowly, clearly, and cooperatively [3]. However, the limited study time in MAN 2 Kota Bogor along with the unexpected implementation of the distance teaching system has an increasing impact on the competence of French learning students because the teaching content is not delivered optimally. Hasanah and Saefullah [5] found that even extending to 2 x 45 minutes of study time a week at MAN in Cirebon cannot achieve early-level French learning targets.

Prior studies on foreign language teaching were found: in teaching English for specific purposes (ESP); for example, Pisarenko and Bondarev [6] found that visualization-based technologies are effective in developing student's foreign language communicative competence and their imagination, memory, mental abilities and critical competence; while García-Sánchez [7] suggested an ubiquitous approach that motivated learners to be innovative and successful by combining individual and group work inside and outside classroom hours. Others studied the best way to organize and satisfy distance-teaching objectives of English as a foreign language: Didmanidze and Bagrationi [8] recommended use of email and computer-mediated communication and the Internet for communication and for collaborative projects with students across classes in different parts of the world. Digtyar et al. [1] found that distance teaching can be made competitive by using modern technologies such as electronic teaching manuals, platforms and case technologies, and Niyibizi et al. [9] offered reconceptualization of distance language teaching. Studies that address technology and foreign language teaching have also been conducted by Demouy et al. [10] who stated that knowledge of self-directed learners' practices, in this case by using mobile devices in contributing; while Bilyalova [11] added that Information and Communications Technology (ICT) in teaching a foreign language in high school could promote positive learning motivation.

Based on the described situation above, it can be said that the problem of French language teaching faced by MAN 2 Kota Bogor is how to make it efficient and adaptable to the study time given in the school curriculum, but to still achieve the target of improving the competence in French learning students through distance teaching. Referring to most previous works studying distance teaching, English as foreign language and English for specific purposes, this article presents an experiment of distance teaching French as a foreign language for specific purposes (FOS) out of the context, which is the school. This complimentary activity is given intensively during the school holiday (a total of 24 hours in one month) to students of MAN 2

Kota Bogor using FOS, namely tour guiding activities in order to achieve language learning targets.

2 Literature Review

The application of FOS to resolve the problems of MAN 2 Kota Bogor is related to the two FLE teaching approaches that support this study. FOS (Français sur Objectifs Spécifiques) according to Carras et al. [12] is a French-language teaching method for specific purposes. This French teaching method is based on specific fields of expertise, such as tourism, hospitality, and economics. The FOS material provided includes French language proficiency levels ranging from A1- C1, personalized to the needs of learners. This method considers learners as social actors having to accomplish tasks in a particular field of action. According to F. Goullier [in 13, p. 22-23], a task in this method is a given result of a problem to be solved, of an obligation to be fulfilled, of a goal. The tasks which are real and are at the core of teaching are linked directly to the objectives and therefore to the needs, FOS didactics involve the design of "tailor-made" teaching programs on a case-by-case basis, business by profession, based on authentic documents taken from specialized communication. In this study, the French teaching program was given using the FOS method related to the tourism industry, emphasizing the tour guide profession with initial A1-A2 language levels. Tourism as the specific purpose for French teaching is based on the facts that there are historical places in Bogor that often attract tourists. With tourism, we could encourage students to use several forms such as flyers and presentations on history or scenery to express their French language skill. According to the model proposed by Mangiante and Parpette, there are five stages in the FOS method: identifying problems, analyzing needs, collecting teaching materials, transferring materials, and evaluation [14]. These stages are the basis of the study.

However, in Enseigner le FLE (français langue étrangère) Pratique de classe [15], it is stated that FLE has described three didactic approaches in teaching French as a foreign language in a class for a more efficient and accurate teaching program. The three approaches are *déterministe et environnementaliste, génétique et cognitiviste, and communicationnelle centrée sur l'apprenant*.

2.1 *Déterministe et environnementaliste*

According to Gaonach [in 15, p. 13-14], this approach has six main characteristics: (1) language instructors must motivate their learners to practice the language, because language is seen as a behaviour or a demeanour; (2) the teaching material must be delivered firstly as oral or verbal material; (3) practising a dialogue that includes simulations of situations or actual circumstances is needed because it can encourage language learning; (4) activities that can build the formation of automatism must be practiced; (5) imitation and memorization of a reference or demonstration can help language practice; (6) practise in using the language is essential.

2.2 *Génétique et Cognitiviste*

This approach brings together three different currents: cognitivism, innateism of Chomsky and constructivism of Piaget. The focus of this approach is in the subject's internal processes, especially in the methods of acquiring the knowledge. There are three principals in implementing this approach, namely the idea of an individual subject, ideal, and of a universal.

The process of acquiring a language can be seen as processing information like a biological program or a mental construction of the subject. For biologists/cognitivists, language is information treated like any other, for Chomsky innateists, language is a specific mental organ, and for constructivists like Piagel, language is a secondary of human intelligence.

2.3 *Communicationnelle centrée sur l'apprenant*

This communicative approach is student-centred. The characteristic of this approach is a functional and pragmatic aspect based language teaching approach used in communication. In other words, teaching is carried out in reliance on utilization, function, and language context in communication. There are four formulas in implementing this approach, namely observation, discussion, practice/exercise, and production.

Déterministe et environnementaliste and *Communicationnelle centrée sur l'apprenant* were selected based on the needs of students in learning French using the FOS method, which found that the students' French language skills were weak. We considered that these two approaches are suitable for students of MAN 2 Kota Bogor, especially in providing the teaching materials for tour guides.

The activities in the FOS stages according to La rédax d'Agitox [16] are carried out in this study by applying also the two approaches of FLE (student-centered with six main characteristics).

Identifying problems and analyzing needs. Observations and discussions with the teachers as well as the observations in IFI virtual class with students of MAN 2 Kota Bogor. From these observations, researchers obtained information on students' weaknesses: in pronunciation, telling the time, and numbers. As found by Permana and Laksman-Huntley [17], according to Indonesian pronunciation practice, they tend to pronounce the French words as they are written. Forum Group Discussion (FGD) was organized together with MAN 2 Kota Bogor teachers and student representatives by using the Google Meet application. The FGD aimed to discuss the constraints and needs of French teachers and students in MAN 2 Kota Bogor and the level of French language proficiency of the students. From these stages, we found that students do not have enough time to master French as targeted by the teacher. This is due not only to the learning time (45 minutes), but also to there being only 1 teacher for 10 classes in each level in the school, which is a total of 30 classes.

Collecting teaching materials. A workshop for the French teachers of MAN 2 Kota Bogor and publicly open for other high school teachers was held using the distance teaching system using Google Meet. It aims were to provide knowledge of teaching and deciding on the right FOS concentration. Based on the characteristic of the school, which is a madrasa located in the town that has several tourist places, we decided to use French for tourism with several end results such as flyer and oral presentations with the objective to cover all aspects of A1: the ability of introducing, presenting, and describing people, the city, its activities, and tourist places orally or in written form with simple language structure and also phonetically and gramatically correct. The materials are French greetings, vocabulary related to touristic places and activities, present and past tense, and imperative sentences.

Transferring materials. Teaching French language for tourism to students has the purpose of teaching student competences in the French language. This program teaches the skills to become a French speaking tour guide by mastering the following competences: two language competences, namely speaking skill and writing skill. They will be able to correctly

speak phonetically and gramatically and able to write using a simple stucture that is gramatically correct. As posited by Boukhannouche [18], FOS is the method where there is an essential phase for improving linguistic competences.

Evaluating. To evaluate the result of the experiment, IFI representatives, lecturers from the French Studies Program of FIB UI, and PT Jagaddhita Tourism Consultant act as evaluators on the tour guiding videos for each student group. IFI and lecturers from the French Studies Program of FIB UI evaluated the language aspects while PT. Jagaddhita Tourism Consultant assessed the professional aspect as a tour guide.

3 Methods

This study is based on qualitative research whose data sources come from the 15 selected senior year students or those in year XII of MAN 2 Kota Bogor. The criteria of the selected students are those who have completed year XI and made it to year XII with a final score of 80-90 in French. This study is conducted in five stages from which data of each stage are gathered to get developmental results. First, after identifying problems through interviewing the school teacher, observing the school syllabus and students' French skill, we prepared a customized teaching syllabus and divided students into 5 groups each consisting of 3 students. Second, we conducted an online French proficiency test consisting of a structure and vocabulary test, writing ability test, and speaking ability test, and later evaluating test results. The structure and vocabulary test as well as the writing ability test is an individual test that is carried out synchronously: students are given 30 minutes to take a multiple-choice structure and vocabulary test via Google Form, then proceed with answering the writing test questions via Google Documents which have been uploaded first on Google Classroom, and worked on for 45 minutes. Meanwhile, the speaking test is a test that is carried out per group asynchronously: each group is asked to create a conversational dialogue based on the communication situation they choose from 2 given themes; each group is given 24 hours to make a recorded video then submit it in Google Classroom. These tests were carried out in order to determine the initial French proficiency level of each student. The results were then used as evaluation material to measure the success of the given solution in this research.

Third, the teaching and learning process. During the teaching and learning process, online quizzes through WhatsApp Group (WAG) are conducted outside of regular lessons. Regular lessons are Tuesday, Thursday, and Saturday from 10 AM to 12 AM (total 24 hours regular study time: 12x sessions @2 hours). During the teaching and learning process, a student's progress was recorded and evaluated based on their quiz scores and participation. We used the evaluation to decide the next activities for better results. Fourth, the execution of the final project as a tour guide in 5 famous tourist attractions in Bogor: Kebun Raya Bogor, Museum Zoologi Bogor, Vihara Dhanagun, Jalan Surya Kencana, and Istana Presiden. Students will demonstrate what they have learned and practiced in online classes by recording a tour-guided video. At this stage, three speakers, namely representatives of Institut Français d'Indonésie (IFI), representatives of French Studies Program of FIB UI, and

representatives of PT Jagaddhita Tourism Consultant evaluate the results. Evaluators from IFI and French Studies Program assess the video with respect to linguistic aspects, using the following assessment criteria: competence in using tour guiding material in French, pronunciation, intonation and facial expression, sentence structure and vocabulary, gestures, and video creativity (see table 1 for the assessment form in French).

Table 1. Assessment Form for the Linguistic Aspect

No	Group	Student's Name	Tour Guiding Material (Opening, Content, Closing)	Pronunciation	Intonation and Facial Expression	Sentence Stucture and vocabuary	Gesture	Creativity of the Video	Final Score	Suggestions and Comments
			Scoring Range							
			30	25	10	25	5	10	100	

Meanwhile, PT. Jagaddhita Tourism Consultant assesses the professional aspect as a tour guide, using the following assessment criteria: tour guiding gestures, presentation on the tourist attraction, attitudes, and video creativity (table 2 is the tour guiding assessment form).

Table 2. Assessment Form for the Tour Guiding Aspect

No	Group	Student's Name	Gesture	Presentation on the Turist Attraction	Attitudes	Creativity of the Video	Final Score	Suggestions and Comments
			Scoring Range					
			20	50	10	20	100	

The video assessment is done online and indirectly. The purpose of this activity is to evaluate students transparently. The results of the assessment are used as an evaluation for the entire teaching and learning process.

The fifth stage is the final stage, which is analysis of data sourced from the results of the second to fourth stages and includes initial test results, student development results, and final results. This stage aims to measure the success of the solutions given. The final result is then analysed based on FOS [12 and 16] and FLE theory [15].

4 Results and Discussion

4.1 Participants of FOS Distance Teaching Lesson

The initial test demonstrated that the selected students did not have the necessary criteria. The teaching and learning process also showed that the French language proficiency of participants remained inadequate with 85% of students being weak in two language skills, namely writing and speaking. Weaknesses was also seen in pronunciation, structure, and vocabulary.

The diverse backgrounds of the students—some students are active in self-development activities during school holiday time, some spend their time at home, and some volunteer to be caretakers at a mosque (a marbot)—are challenging for the teachers who also play a role as researchers in delivering the teaching content. However, by applying Demouy [10] and Bilyalova [11]'s result, we were able to overcome these challenges by providing regular lessons through offering students a flexible assignment deadline, offering an adaptive time and learning space to ask questions via WAG about the teaching materials given, and being allowed to use ICT to accomplish tasks.

During each 2 hours of live teaching sessions, participants were able to follow the lesson very well, even though in the middle of the learning process, for personal reasons, three students from the religion program did not complete the group project. The teaching activities were continued with 12 participants until the end of the syllabus. After taking 1-2 weeks of teaching, the enthusiasm and ability of each participant began to show improvement in comprehending the material and in the French pronunciation system. The enthusiasm, curiosity, and ability of the participants in following the learning process can be seen from their capacity to understand the teaching material in a shorter period of time, resulting in acceleration of the initial teaching plan, so the teachers have to modify the syllabus to adjust to the actual learning situation.

This result shows that contradictory to Hasanah and Saefullah [5], extending learning time could be satisfactory if learning conditions are enjoyable, encouraging and not stressful. However, the study context might influence the satisfying result. Studying during school holiday even though the students have to do other tasks outside due to the COVID-19 pandemic situation involving a flexible schedule for homework and financial support for internet quota data, might be the factors in the research result, which supports Demouy et al. [10] and Bilyalova [11]'s study.

4.2 FLE (French as a foreign language) distance teaching for high school students

Following the six main characteristics in déterministe et environnementaliste approach suggested by Gaonach [15] along with the student-centred approach, the activities were as follow. As language instructors we motivated the high school students by giving them an appreciation for their result and answers. Additionally, the materials that they needed or wanted to know about in the form of audio power point or video documents contained explanations with examples and interesting exercises. For example, students read and heard how every French sound is written and pronounced in a power point document placed in the google classroom with an exercise of singing a French song. With this verbal material students learn and can visit the material whenever they need, can practise it by singing and enhance their understanding by being given an explanation of new vocabulary.

Practice is the main activity in this study: students are encouraged, for example, to make sentences to show interesting places in Bogor or to tell the history of the places verbally

or in writing after they are taught how to be a guide or to use past tenses in a story. Additionally, unconsciously, students are encouraged in automatism, imitation and memorization through quizzes.

The teaching and learning process commenced in June 2020 and ended in July 2020 with three sessions per week in a scheduled period. Each teaching session, except for the quiz, is conducted intensively for 2 hours (120 minutes). The learning agenda consists of 16 sessions in total which divide into 12 lessons and 4 quizzes outside of the regular lessons. Every session is conducted with online helping medias: WhatsApp, Google Meet, and Google Classroom. The demanding learning agenda schedule using various online applications, necessitated researchers subsidizing the internet data costs of the students so that they could fully and conveniently participate in the program.

In each session, the teachers are accompanied by two facilitators, who are final year undergraduate students from the French Studies Program of FIB UI, whose task is to record the participation of students with the help of internet-based media on Google Form. The active participation aspects recorded are the attendance, punctuality in class and assignment submission, participation in asking or answering a question in class, participation outside of the class during a quiz or on an individual learning session, and the quality of the student's quizzes and assignments. After finishing the last session of the compulsory lesson, students were tutored intensively in each group for a week as they created a video tour guide for their final project. These tutoring sessions were first conducted by the teachers focusing on pronunciation and intonation and then proceeded by facilitators under the guidance of the teachers via WAG. With this individual tutoring session, each group was able to convey their ideas and communicate their progress through video production, conveniently.

We, acted as French teachers, delivered the teaching materials gradually, starting with pronunciation, then continued with the structure of tour guide material: the opening, content, and closing sentences, tour guiding, production of tourism flyer, and then proceeded with frequent practice/exercise in both writing competence—to make a guiding script—and speaking competence—to give a virtual-guide presentation—focusing on pronunciation. The teachers implement the formula of observation, discussion, practice/exercise, and production in each teaching material section, corresponding with the two FLE approaches used.

The challenges in distance teaching related to technology use, as stated by Digtyar et al. [1] were also found by the teachers in this program. However, with numerous adequate platforms today, this technology-related problem can be appropriately resolved. It is advisable that, before starting the lesson, the teachers must first examine the problems that could occur related to technology use and prepare appropriate solutions to resolve them. For example, in this research, providing internet data for students is a solution to prevent the possibility of their incapacity in affording the internet data cost.

Another example is the unstable internet connections experienced by the participants. To resolve this condition, the teachers can deliver the teaching materials using other alternatives, for example by writing the material being explained in the chat room of the video conference application, then copy and paste it into another chat room, for example, in the WAG. Therefore, the students who have problems participating in class and those who are unable to join the session can still learn the teaching material provided, and it can even be used as a study reminder for all students and as a way to encourage new discussion forums. These challenges are not found or mentioned in previous studies.

However, our presenting references (observations), imitation and memorization (discussion) activities, as well as regularly practising in using the language, have helped students to more easily understand the teaching materials and later be able to produce the

expected language output, in both oral and written form. Working in a small group of 3 students is also a helping factor whereby they share what they have learned with others in the group who have missed a teaching session or encourage one another in the objective of finishing the project.

4.3 Final Result: Virtual Tour Guiding

By examining the student activity record that has been created since the first session, teachers can decide on the three students with the highest participation points, selecting them as the best students for the teaching program. However, even though there are only three participants selected as the best students, the teachers still paid attention to the individual development of all the remaining 12 students.

Through the collected data, it appears that the students with the highest points are always present on time for every lesson in WAG and Google Meet. The majority of student participation was seen more often by using Google meet rather than WAG (figure 1). This is because the time for Google meet is always reminded beforehand so that the students are prepared while their attention on WAG could be sidetracked by other activities.

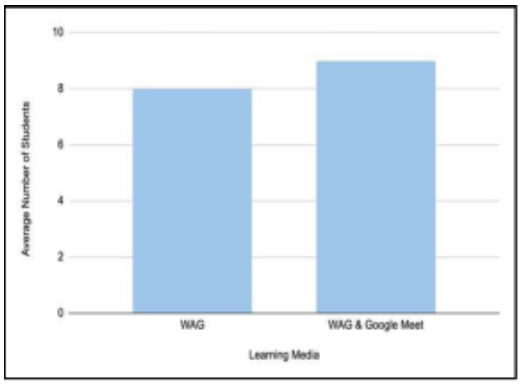

Fig. 1. Attendance Graph

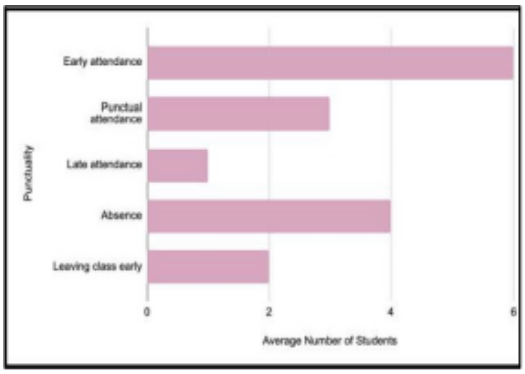

Fig. 2. Punctuality Graph

Nevertheless, figure 2 shows that they sometimes are ready before the lesson even begins. Moreover, they are also active in asking and answering questions during and after the class (figure 3) and disciplined in submitting all of the assignments given (figure 4).

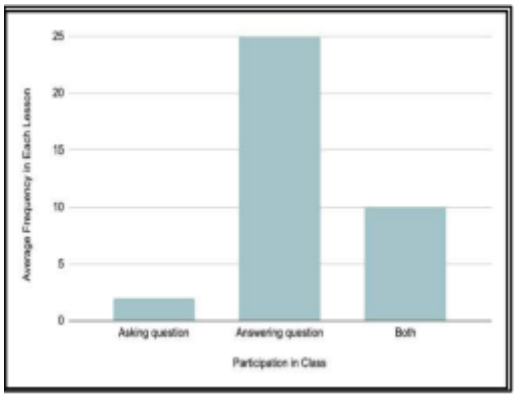

Fig. 3. Participation in Class Graph

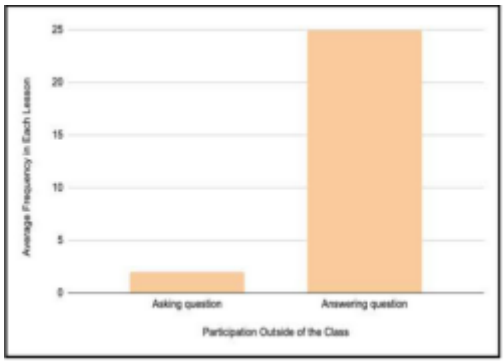

Fig. 4. Participation Outside of Class Graph

Quizzes are a popular activity. Most students tried their best to answer pronunciation and structural questions. Eagerness to reproduce what they have learnt and memorized could be seen in their responses (figure 5).

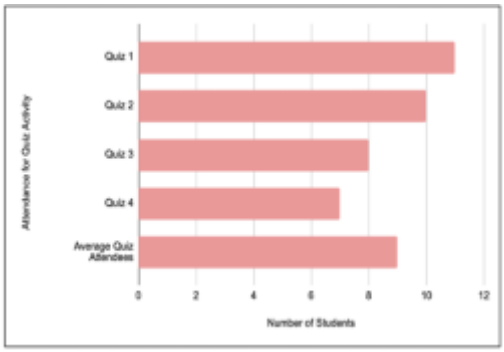

Fig. 5. Attendance Graph for Quiz Activity

Figure 6 shows that with one month of this learning process, the result is acceptable. Meanwhile, students who rarely attend the online classes and submitted assignments do not show the same excellence in improvement.

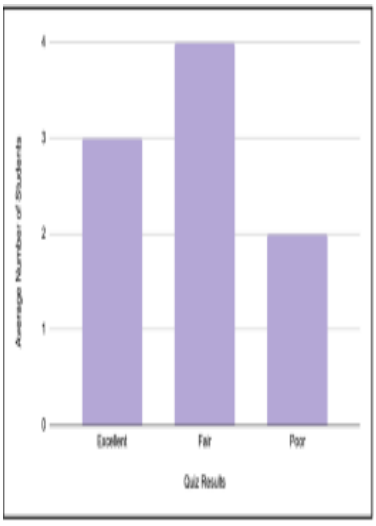

Fig. 6. Quiz results graph.

However, on seeing the program as a whole, practically every student showed massive progress in understanding French, especially in pronunciation and sentence structure. Thus, the A1 target is achieved before they started year 12. Their enthusiasm in finishing their group project with a good video overcame the difficulties of reserving time to practice with tutors, correcting the text, and merging the recording and visual documents. This progress can be seen from their tour guiding videos where they can pronounce every French word correctly and adequately throughout the video while using accurate intonation, such as rising intonation, to ask questions and to interact with visitors; these skills had not been mastered before the learning program. Furthermore, the video presentation shows that students also managed to present the right tour guiding gestures such as hand movements and facial expressions.

Positive results are also indicated from the final project scores and comments given by the evaluators for each video. The evaluators appreciated the final results of the students; one of them even suggested to post the videos on every social media page managed by IFI and send them to Wonderful Indonesia (Table 3). And the projects were found to be acceptable from the tour guiding point of view (table 4) too.

Table 3. Recapitulation of students' final scores and comments as a tour guide

No	Group	Gestures	Presentation on the Turist Attraction	Attitudes	Creativity of the Video	Final Score	Suggestions and Comments
		Scoring Range					
		20	50	10	20	100	
1	Jalan Surya Kencana	14	40	8	14	76	Tourist attractions' potential can be discovered further
2	Museum Zoologi Bogor	14	44	8	18	84	The video is original and fresh
3	Vihara Dhanagun	18	40	8	14	80	The interaction between tour guides and visitors has been built
4	Kebun Raya Bogor	14	44	8	16	82	More guiding materials could be delivered

Table 4. Recapitulation of students' final scores and comments from aspect of French language

No	Group	Tour Guiding Material (Opening, Content, Closing)	Pronunciation	Intonation and Facial Expression	Sentence Stucture and vocabuary	Gesture	Creativity of the Video	Final Score	Suggestions and Comments
		Scoring Range							
		30	25	10	25	5	10	100	
1	Jalan Surya Kencana	22,5	19,5	7,5	16	2,5	8	76	Impressive video with excellent pronunciation
2	Museum Zoologi Bogor	20	13,5	6	17,5	2	9,3	68,3	The video qualty is outstanding

3	Vihara Dhanagun	22,5	17,5	7	17,5	4,5	8,3	77,3	Excellent presentattion with celar pronunciation
4	Kebun Raya Bogor	25	20	6,5	18,5	3	7,3	80,3	The supporting images chosen are unique; the presentation is entertaining

Based on feedback from the students given after the activities, 85% of the participants found that they improved their pronunciation and 92% of them stated that the program gave them the opportunity to gain better and more knowledge in French. 42% of the participants expressed their interest to practice tour-guiding on site or create a blog or even organize a festival to promote their region.

5 Conclusion

The complementing activities of student centred and customized French teaching trial with a specific purpose (FOS) as a tour guide for the students of MAN 2 Kota Bogor, show that FOS can be successfully used because FOS has a tangible result that can drive student motivation in learning French. In this case, to obtain level A1 competency. This outcome does not support findings in [5] but is consistent with the results discovered by Bilyalova [11] who stated that technology use in teaching with specific objectives could motivate learners. The MAN 2 Kota Bogor students are motivated when using an on-line learning process and technology that is familiar to them, which has also been used in their regular lesson at school. This motivation arises because FOS teaching has clear learning objectives; hence the final results are more apparent than a regular French teaching lesson with no specific objectives. With the FOS method implemented within student groups, the teachers provide a learning space for students to improve by giving various exercises and practice that needs to be accomplished by the participants as well as the freedom to express themselves through the production of language outputs, in written or oral form. For example, when they are writing a description and explanation of a particular tourist attraction. The students are also allowed to work together in groups, which teaches teamwork and empathy for other group members who might need help. Therefore, progress is not only accomplished in terms of language but also in an individual's (student) characteristics: stimulating their imagination, social interaction, and strengthening students' mentality. This progress is in line with previous research results [6] and [7], which stated that teaching foreign languages with a specific purpose can promote a learner's language competence as well as their self-competence. However, one must pay attention to these details when applying the FOS method: the interest of students and the way teachers encourage students to review teaching materials. One of the methods used in this research is by giving quizzes outside of the regular

teaching schedule, which are conducted routinely once a week through the WAG. Quizzes create a healthy competition environment between students, thus encouraging students to be enthusiastic in their study.

Agreeing with Digtyar et al. [1], this study also proves that in distance teaching, technology-related problems cannot be avoided. Therefore, responsive actions are demanded of the teachers in providing the teaching plan (syllabus): sorting out the material that can be given synchronously or asynchronously. Furthermore, teachers must also prepare solutions to possible challenges that could emerge during the teaching process. Researchers also found that the teaching approach in FLE, which is intended for a face-to-face class [15], can be implemented for distance teaching (online).

For Indonesian high schools, especially state high schools that tend to reduce teaching class time to a minimum using a minimum number of teachers for less popular languages, this procedure can be used to achieve minimum targets, in this case, A1 French competency. With A1 in French, one can communicate easily with French native speakers who are known to be patient and cooperative with foreigners. Collaborative learning in groups can support teachers to address the subjects outside of the classroom. However, this study should be extended into more schools with different purposes than tourism, for example hospitality trades, which might give more and better perspective to students with respect to professionalism.

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Learning Local Wisdom on Pasemah Megalithic Relics in Lahat Regency, Efforts to Anticipate the Negative Impact of the Industrial Era 4.0

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Abstract. The title of this paper is "Learning Local Wisdom on Pasemah Megalithic Relics in Lahat Regency, Efforts to Anticipate the Negative Impact of the Industrial Era 4.0". This study uses historical methods to find local wisdom of Pasemah megalithic relics in Lahat regency. Pasemah Megalithic relics is very large and extensive with various shapes and sizes, this shows that the supporting community has a high civilization. Pasemah megalithic relics are mostly in the form of stone statues and monuments that are carved dynamically, magnificently, and cause monumental effects. This condition is reflected in the symbols to be conveyed by the sculptor, as a characteristic of the character and religious value of his people. The local wisdom was re-learned as an effort to anticipate the negative impact of the industrial era 4.0, because the legacy of civilization is a form of behavior of living people with unique local wisdom. Therefore, this paper will examine the value of the local wisdom of Pasemah megalithic relics in Lahat regency, as an effort to overcome the negative impacts of the industrial era 4.0.

Keywords: Learning, local wisdom, Pasemah megalithic relics, Lahat regency and South Sumatera Province.

1 Introduction

South Sumatera is very rich in cultural and historical heritage from every age, non-religious times, Hindu-Buddhist, Islamic, colonial and contemporary. Speaking of historical heritage, South Sumatera is second to none, non-cultural relics in various regency in one of them, Lahat regency and Pagaralam City (Pasemah) have a very complete Nirleka cultural heritage and are spread in several villages. The very rich remains are stored by various local wisdom as a form of community character. Cultural wealth with the value of local wisdom needs to be lifted and developed again in the millennia generation, so that they do not lose their national identity and national identity.

Current conditions, the millennia generation in the industrial 4.0 era does not seem to have the attention and concern for the cultural heritage that is full of wisdom and values of these characters. Therefore there needs to be a continuous and consistent effort in preserving the culture. All elements of society need to be involved in cultural preservation efforts in South Sumatra, local government, business, the general public, cultural organizations and the world of education. The involvement of the regional government, business world, cultural organizations and the general public may have been done, but when speaking of the world of education this has become a very important thing.

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Referring to the 2013 National Education System Law on Article stated that "National education functions to develop capabilities and shape dignified national character and civilization in order to educate the nation's life, aiming at developing potential students to become human beings who believe and fear The One Almighty God, noble, healthy, knowledgeable, capable, creative, independent, and a democratic and responsible citizen"[1]. Forming dignified character and national civilization is the role of the world of education, therefore in order to realize this the world of education should have various breakthroughs that can encourage the acceleration of the establishment of a dignified nation of civilization [2]. People who are Muslim are people who care about their culture, because with a strong culture people can fend off the negative effects of the industrial era 4.0.

The megalithic culture of Pasemah is a form of local knowledge that is very unique, has high moral and aesthetic values from the adherents of that culture. Moral value as a reflection of civilization from a society that lives in its time needs to be studied to be found again and can be applied in the present life. Especially nowadays, known as industrial age 4.0, people's lives are beginning to abandon moral values and away from local wisdom. The negative impact of this era needs to be anticipated by learning from a variety of local wisdom that becomes the lifeline of a community, this needs to be done because the contemporary era of people's lives is increasingly far from the cultural roots of its predecessor. Therefore the need for learning local wisdom from the megalithic remains of Pasemah is one of the efforts to fight the negative excesses of the era.

2 Method

This study uses historical methods to conduct critical investigations of events that occur, developments and past experiences which are information that needs to be interpreted [3]. According to Gottschalk, the so-called historical method here is the process of critically examining and analyzing recordings and relics of the past. This study uses historical methods to conduct critical investigations of events that occur, developments and past experiences which are information that needs to be interpreted [3]. According to Gottschalk, the so-called historical method here is the process of critically examining and analyzing recordings and relics of the past [4] Therefore, Priyadi defines historical methods as having links with historical theories and historical explanations.[5]. Explanation and investigation of the past uses the steps of a systematic procedure, process, or technique in the investigation of a particular scientific discipline to get the object / materials studied [6].

The procedure includes source or heuristic search techniques, validity testing or source authenticity (Kritiek) which includes internal and external criticism, interpretation of data that has been obtained including analysis and synthesis, and historiography or writing of data that has been analyzed and synthesized. With the process of historical methods carried out in such a way, the past events can be retold as they are or objectivity [7]. So that past information can be substantive information [8].

To understanding the methods, look through the chart:

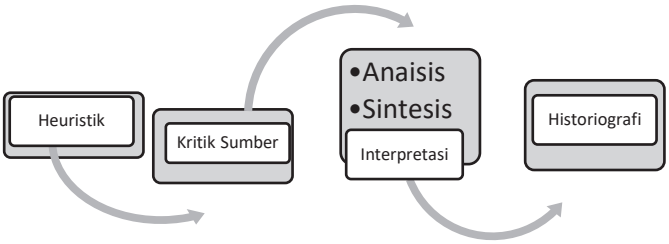

Fig. 1. method of reseacrh

The first stage in historical methods is heuristics. The word Heusritik comes from Greek, namely "heuriskein" which means finding or searching. In Latin, Heuristics is the same as "ars Inveniendi" which means art in searching [9]. The second stage is source criticism, at this stage operational analysis is carried out, after gathering various sources in the research, researchers will not take for granted what is stated in the source, but critically screen the source both internal and external criticism from the source. The third step is interpretation of data, after passing critical reading, the author collects information about a historical period that is being reviewed through this study [10].

The fourth stage, historiography is the stage of writing research results by presenting research results. Writing history (historiography) is a way of writing, exposure, or reporting the results of historical research that has been done based on the data obtained and processed [11].

3 Results and Discussion

Referring to the problems then this paper will be directed to the study of:

3.1 Megalitic Pasemah

The era of megalithic or great stone age is a culture related to prehistoric / pre-literal religious life. The era of megalithics in line with the neolithic era is therefore more appropriate if it is called the megalithic culture [11]. The era of megalithics is divided into two phases of achievement. The first phase is related to ceremonial instruments, while the second phase is related to the burial ceremony [12]. Megalithic culture produces tools such as menhirs that are stone monuments that are made with the aim of honoring the spirits of ancestors [13]. Menhir is a building in the form of a stone monument which was erected to honor the spirits of ancestors, so that the form of menhirs is a single stand and there are groups and some are made with other buildings such as punden berundak. Locations where menhirs are found in Indonesia are Pasemah (South Sumatra), Central Sulawesi and Kalimantan [14].

Pasemah is one area in Lahat Regency and Pagaralam City, South Sumatra province. This area is geographically a highland region, and its position is still a series of hills in Barisan on the island of Sumatra. Tropical natural forest with rocky rock conditions, is a unit of igneous rock with andesite rock types, and traversed by several tributaries (Batang Hari Sembilan

region), is a fertile area and very potential for the life of ancient or prehistoric people, in an effort to fulfill their life needs that are instinctively and adaptively still rely more on the availability of food ingredients from nature. On this Pasemah earth found many ancient artifacts left by Megalithic (Big Stone) culture, such as: Stone Statue, Stone Grave, Wall Painting Stone Grave, Scratched Stone, Scratched Image on Wall Cadas, Dolmen, Lumpang Batu, Menhir, etc. [15].

The community of megalithic supporters in Pasemah is inseparable from the wisdom of the past that changed the mindset of humans in absorbing and developing technology to support their lives, so that production tools and household appliances were created to form work specializations in accordance with certain skills and expertise. The implications of these conditions opened their minds to something and very influential to their lives, so the birth of an embryo of trust which was manifested in monumental works in the form of megalithic buildings that embodied the function of worship, supporters of megalithic culture in Pasemah gave an indication that an artist on the basis of his natural-oriented imagination reality will give birth to carvings or works with beautiful forms of work, but when viewed from the results of sculptures of megalithic sites in Pasemah it has provided an illustration that the artist's imagination has been contaminated by the inner pressures that are oriented the religion of the megalithic buildings in Pasemah with its morphological characteristics and functions can we observe how the megalithic-megalithic relationship is to contemporary religious life and the appearance of art in its time [16].

The cultural heritage of Pasemah megaliths is categorized as complete and widespread in Lahat Regency and Pagaralam City, such as Karang Indah, Tinggiari Gumai, Tanjung Sirih, Padang Gumay, Pagaralam, Tebat Sementur (Tanjung Tebat), Tanjung Menang-Tengah Padang, Tanjung Tebat, Pematang, Ayik Cold, Beringin Tanjung, Geramat Mulak Ulu, Tebing Tinggi-Lubuk Buntak, Nanding, Batugajah (Kutaghaye Lame), Pulau Panggung (Sekendal), Gunung Migang, Tegurwangi, and Airpur [17].

Remains found are: 1) Statues that are carved in the form of human figures. 2) Menhir, which is an upright stone which is usually related to the purpose of worshiping the static and dynamic statues of ancestral spirits / stone statues. 3) Cubicle / Stone Grave is a building made of stone consisting of walls, a base and a roof / cover. 4) Dolmen which are large stones supported by small stones around them that serve as a buffer. 5) Stone overlays, which is a stone with a flat top and a hole or more that might be used as a pounder. 6) Flat stone, which is a monolith placed on the ground where the surface is flat. Usually used for worship ceremonies 7) Tetralith is an arrangement of 4 large stones in a circular shape that serves as a place of ceremony and worship of spirits. 8) A tomb jar that functions as a body burial place. 9) Stone Bale or stone scratched. The variety of megalithic findings on the land of Pasemah has caused cultural civilization in the highlands of the Basemah to become rich, complete and unique in its time [18].

3.2 Local Wisdom

Local wisdom is the basic knowledge of the local community in its efforts to live in balance with nature. Such knowledge is a real experience in integrating body and soul with the environment. Experience continues to be used as moral and material values in their lives [19]. Therefore local wisdom refers to community experience and local knowledge [20]. Local wisdom is inseparable from the religious values embraced by the community. The values of local wisdom are not only to maintain a harmonious relationship between humans and humans but also with their environment, as a form of human service to God. Local wisdom is often referred to as local wisdom. It can be interpreted from the origin of the word, namely wisdom,

which is a person's ability to use his mind to respond to an event, object or situation. While local (local) shows the interaction space where the situation occurs. So that it can be drawn an understanding that local wisdom is positive human behavior in relation to a particular region [21].

So what is meant by local wisdom is the view of life, science, and various life strategies in the form of activities carried out by the Pasemah community in answering various problems in meeting their needs in the megalithic era. It is connected with the Pasemah megalithic relics, the concept of local wisdom especially in the management of materials in their environment. It is a collection of knowledge, practices and practices and beliefs that develop through adaptive processes (adaptations) that are passed down from generation to generation through culture, which are related to the relationship between living things (including humans) and the surrounding environment [22].

The Local wisdom that can found from Pasemah Megalitthic remains are :

Religious. Forms of megalithic passages in various forms are used for religious ceremonies. Megalithic culture as a means to submit a request to the adored or for the implementation of ceremonies such as means to invoke fertility, or avoiding diseases or pests [23]. Most of the megalithic remains have a weak goal for worshiping ancestral spirits and as a burial place for corpses. [24] This shows that the supporting community is religious people, the religious values are manifested in a very multi-functional worship system [25].

Beside that the Pasemah megalithic statues show that humans at that time were very closely related and related to animals such as: Elephant, Snake, Buffalo, and others. This can be seen from the visual sculpture that depicts people supporting the megalithic tradition Pasemah is a society that upholds the concept of worshiping ancestral spirits in their religious life or according to Erwan as a puyang concept [26].

Gotong Royong. Megalithic is a culture that produces monumental buildings made of large stones. In general, the establishment of these megalithic buildings made of large white-colored endesite stones, the large stones were then formed according to their needs. If it is observed that large cultural products are not and neatly arranged in a certain place, this cannot be done alone, of course it is done in mutual cooperation. This mutual cooperation is for the common interest and is used together as well, therefore it can be revealed how the supporting communities are mutually collaborating for common interests.

Love the environment. All megalithic remains in Pasemah use large stones, which are available around them. The emergence of megalithic cultural values in the context of knowledge has implications for what materials are used. The physical environment around the site of the discovery of the megalithic site, shows the material available in the nearest environment and other materials which are then used as media for making the site. These remains visualize megalithic cultural values because the material used is large stones [27].

Creative. All megalithic remains in Pasemah use large stones, which are available around them. The emergence of megalithic cultural values in the context of knowledge has implications for what materials are used. The physical environment around the site of the discovery of the megalithic site, shows the material available in the nearest environment and other materials which are then used as media for making the site. These remains visualize megalithic cultural values because the material used is large stones [27].

The emergence of megalithic cultural values in the context of knowledge has implications for what materials are used. The physical environment around the site of the discovery of the megalithic site, shows the material available in the nearest environment and other materials which are then used as media for making the site. These remains visualize megalithic cultural values because the material used is large stones [28]. In fact, according to Suryanegara, the artifact of the megalithic remains of Pasemah is the best form of work in the world in his day, based on the visual appearance of Pasemah's sculptures that tend to be relatively.

3.3 Learning Local Wisdom Efforts To Anticipate The Negative Impact Of The Industrial Era 4.0

In the technological concept, the industrial 4.0 era is very positive, but in the social and cultural conception the negative excesses of this era are very large, for example the loss of various moral values eroded by the swift flow of information. This will have an impact on human behavior that is increasingly selfish and does not care about the environment both socially and physically. The eradication of national culture is not impossible because it is necessary for significant efforts to anticipate the negative impact of the industrial era 4.0. Therefore, it is necessary to rebuild cultural values that have been inherent in the community and have proven their strength against negative currents, these values are extracted from various local wisdoms from all regions in Indonesia.

Local Wisdom or often referred to as Local Wisdom is local ideas that are wise, full of wisdom, good value, embedded, become traditions (steady) and are followed by members of the community [28]. Local wisdom is a collection of facts, concepts, beliefs, and public perceptions of their environment. Local wisdom is understood as everything based on knowledge, acknowledged by reason, and in accordance with religious provisions. Local wisdom is formed as a cultural superiority of the local community as well as geographical conditions in a broad sense. Local wisdom is a product of the past culture that should be continuously taken into account in life. Although it is locally valued, the values contained in it are considered to be very universal [29].

Characteristics of local wisdom are: (1) awakened based on experience; (2) tested after being used for centuries; (3) can be adjusted to the current culture; (4) commonly carried out by individuals and society; (5) is dynamic; and (6) strongly related to the belief system. Local wisdom in the form of rules relating to: (1) human relations, such as marriage; (2) human and natural relations, as an effort to conserve nature, such as customary forests; and (3) relations with the unseen, such as God and supernatural spirits. The values of local wisdom contain what is called local genius, namely cultural identity, which is the identity of the nation which causes the called local genius, namely cultural identity, which is the identity of the nation which causes the nation to be able to absorb and cultivate foreign cultures according to their own character. Therefore local genius as part of local wisdom must continue to be preserved, through the local genius that a nation will be tested for its ability to survive in the midst of the progress of the time this the Melenial generation must not forget the cultural roots that already exist because those cultures contain very noble values that need to be preserved. That is local wisdom that needs to be explored while still enjoying modern culture. Forgetting existing local wisdom means denying the existence of a highly valued ancestral cultural heritage. Local wisdom contains ethical guidelines, life views, traditions, philosophies, and so on that can be used as a balance of life in the current digital era [30].

4 CONCLUSIONS

Megalithic cultural heritage Pasemah is very "sophisticated" which spreads in a very large number, showing that human supporters have local wisdom that is related to their life needs. These se megalithic remains show local knowledge that must be maintained, based on this study, values can be found that can be found from the distribution of megalithic artisan such as religious values, mutual cooperation, environmental love and creativity. These values have been proven in the history of the Pasemah community who can anticipate the various cultural currents present.

Through this local wisdom from the megalithic inheritance of Pasemah, it needs to be continuously developed to deal with the negative excesses of the industrial 4.0 era that are digital and tend to be individualistic.

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Finding the Right Setting Models for International Civil Laws

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Abstract. As a rule of law, Indonesia will organize an orderly life and life in society, as a nation and state using just legal rules. The Indonesian people will build an order of life together within the framework of a democratic Indonesian state based on a just national legal order. Thus, the development of the nation and state must also be accompanied by legal development. As a country that inherits the legal tradition of continental Europe, the development of legislation is central to legal development the need to find the relationship between the setting model and the international civil laws principles was tested and results in data are analysis by the questionnaire were distributed among stakeholders. The results show that there are a significant correlation and effect between the two variables of the study and lead to the conclusion that a significant correlation and impact of the right models' dimensions in supporting the right civil laws.

Keywords: Setting models, International. Civil Laws.

1 Introduction

Indonesia is at a crossroads between choosing the western version of the legal development path or the original Indonesian legal development path [1]. The replacement of the justice logo from the goddess of justice to the tree of protection in 1965 turned out to only be a symbolism to break away from the western version of legal development [2]. Supposedly, this symbolism was followed by a model of legal development based on the law of protection as well [3]-[5].

With the emergence of Soeharto's New Order regime, a basic understanding of law in an instrumentalist sense later found its place. In this period, law as a means of development became a mainstream school in the development of Indonesian law. However, this legal development was not complete in replacing colonial law with Indonesian national law [6],[7].

In the 2019-2024 National Legislation Program Longlist (Prolegnas), one of the Drafts on International Civil Law (RUU HPI) was submitted. The submission of the HPI Law in the longlist is intended as a form of protection of human rights and law, as well as providing legal certainty for Indonesian citizens. In addition, the absence of specific legislation on HPI in Indonesia hampers economic activity in Indonesia and reduces the attractiveness of Indonesia as an investment destination. Therefore, the HPI Law was proposed in the 2019-2024 Prolegnas longlist to address the gaps as mentioned. However, it is also necessary to pay attention to the Legal Politics of the HPI Law as a separate Law and the proper model in its regulation. Constitutionally, the HPI Law is an embodiment of the principles of a rule of law and human rights guarantees [8]. Call it the right of everyone to recognition, guarantee, protection and legal certainty that is just and equal treatment before the law. With the high intensity of Indonesian citizens and citizens of other countries to have legal relations with each other, of course this will have implications for potential disputes that will arise in the future as long as the legal

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relationship lasts. Meanwhile, civil law relations involving foreign elements are vulnerable to problems in the context of jurisdiction, choice of law, and legal decisions that can protect these legal relationships. The principle of a rule of law and several human rights provisions in the 1945 Constitution of the Republic of Indonesia can thus be considered as consideration for the HPI Law [9].

Moreover, the Indonesian constitution has also emphasized that the protection, advancement, enforcement and fulfillment of human rights are the responsibility of the state, especially the government. Therefore, the proposed HPI Law by the government in the 2019-2024 Prolegnas longlist can be considered valid, and has a real constitutional basis as has been stated in the previous paragraphs in this section of this study.

2 Methodology

The present paper looks in more details at the upcoming regulation of the rights from faulty performance of purchase contracts and examines the complaints of defected performance. The first feedback and reviews on the new rules brought by the civil laws and applied by the practice, as well as the reaction provided by the case- law of national courts suggest that in the achievement of the established goal ± to increase the transparency of the procedure of complaints ± the new codification got stuck in the halfway. As we may see when comparing the previous and the current regulations, the civil laws rules are based on the rules contained in the former Commercial Code. Therefore, it seems to be useful for our paper to analyse and compare the impact of the new legislation as perceived from the perspective of the merchandisers on one side and from the perspective of the consumers and/or the public authorities (trade inspection). We will use the method of functional analysis as well as the method of legal formalistic comparison.

3 Results and Discussion

This section identifies and describes the research variables based on the hypothetical model of the study, as well as elucidating the correlation and impact between the two variables.

3.1 Identification and Description of study variables

Legal Politics of the HPI Law. As previously explained, the development of national laws governing HPI is still not finished. With regard to the HPI arrangement, currently Indonesia still relies on three old articles inherited from the Dutch East Indies, namely Articles 16, 17 and 18 AB. Therefore, the legal politics that characterize the HPI Law must be to fill the legal vacuum due to the very rapid development of the world. In addition, at the same time, they must maintain the substance of the regulations to be within the corridor of Indonesia's legal sovereignty [10].

Therefore, the regulatory formulation in the HPI Law must be careful in using norms, especially in terms of court authority because it has different implications. For example, in the regulation of Article 7 paragraph (2) and Article 12 paragraph (1), norms must be used which means a binding obligation [11]. In one sense this can be good because it provides legal obligations but on the other hand it can create the potential for unconstitutionality of norms because HPI will be related to foreign elements and thus related to the rule of law and the court's sovereignty in deciding cases. This of course will have the potential to conflict with the provisions in the Constitution, especially the judicial power and at the level of the law has the

potential to conflict with the Law on Judicial Power. Therefore, it is necessary to rethink the choices of these norms, for example, as much as possible to use the word can in terms of providing regulatory norms to the court as has been done in several regulations in the HPI Law [12].

3.2 Appropriate Setting Model

Potential of Disharmonizing. HPI-related regulations are scattered in many laws, namely, Law no. 48 of 2009 concerning Judicial Power, Law no. 30 of 1999 concerning Arbitration and Alternative Dispute Resolution, the Marriage Law, the Citizenship Law, and the Laws related to economic activities. The law is of course closely related to the HPI issues which include jurisdiction, choice of law, and recognition of decisions by foreign courts.

Therefore, the drafting of the HPI Law must be carried out with great care because the potential for conflict with existing or previously existing laws is very high. This is important because Indonesia does not recognize umbrella laws or basic laws so that each law is parallel to other laws [13].

Therefore, the HPI Law needs to pay attention to harmonization with other laws in detail. In fact, if you look at the existing NA, the order for harmonization with the Sectoral Law already exists but has not been fully manifested in the list of regulations in other laws. The harmonization is not just the alignment of the load material which is only skin deep, but it is necessary to see whether the regulatory substance has the potential to overlap with other arrangements.

For example, in implementing a foreign decision, is it in accordance with the Law on Judicial Power. The Law on Judicial Power provides large and central authority to the judiciary in enforcing laws in Indonesia. Therefore, the provisions which give recognition to the rule of law, the legal system and the enforcement of foreign decisions must take into account the powers of the existing judiciary.

This regulation must be careful because it relates to Indonesia's sovereignty and is closely related to the potential for a lawsuit against the constitutional review in the Constitutional Court. In this context, the team should collect material content from the HPI Law which has a slice of content with the existing laws. The most important thing is to pay attention to the Law on Judicial Power and the Sectoral Law which regulates the recognition of legal rules, the legal system, and the enforcement of decisions.

Apart from that, another dimension that is very important is the consistency of definitions which must be uniform in all Horizontal Laws. This definition cannot be underestimated because the Cooperative Law was completely annulled by the Constitutional Court because the definition is contrary to the constitution. In the HPI Law, there are many definitions that we must review again in the Sectoral Law so that they are uniform and do not conflict with each other.

3.3 Model of Law Management

In order to accommodate strategies to avoid potential disharmony as mentioned previously, there are 3 models that can be used:

a. the first model is to use a system of filling legal gaps between existing laws. This model was used in the Indigenous Peoples' Rights Law proposed by the DPD; In this model, the HPI Law in its regulation uses two stages: the first stage is to first fill in the blank arrangements, and the second stage to appoint norms in other existing laws. This model

requires a cluster of HPI regulations in a thorough sectoral law so that the distribution of norms in this system will complement each other.

b. the second model is a partial codification system such as the Election Law. In this model, the law must also focus on certain clumps of regulation so that there are several books in one law that can accommodate the arrangement according to its clumps. If you look at the entirety of the HPI Law, the most suitable thing is partial codification considering the content to be regulated. In this case, the Pandecta Codification model can be followed by including the general provisions in the FIRST BOOK and so on.
c. the third model uses the Omnibus technique which is exemplified in the Job Creation Law by changing and deleting provisions in other laws (rejection will be large because it changes the major structure in the legal system).

For example, in the Law on Judicial Powers, chapter x, an article on the implementation of foreign court decisions is added with certain conditions, or in the Arbitration Law which provides conditions for the implementation of enforceable foreign arbitral awards.

3.4 Llegal Drafting Techniques

On the other hand, improvements in the context of the technique of drafting laws and regulations must be made. This is because the constitutionality test is not only carried out materially but also can be carried out formally. As stipulated in the 1945 Constitution of the Republic of Indonesia, the provisions of Articles 20, 22 and 22A. Article 22A of the 1945 Constitution of the Republic of Indonesia delegates that the procedures for the formation of laws to be regulated by law. This provision was what gave birth to Law no. 12 of 2011 concerning the Formation of Legislation (UU P3).

The P3 Law will later also become the benchmark in formal testing. Thus, the preparation of all laws and regulations must comply with the drafting techniques specified in the P3 Law. However, based on the author's observations on the HPI Law, there are still many inconsistencies in the drafting techniques in the HPI Law.

Just mention the general provisions intended to regulate the definition or definition, abbreviation or acronym set forth in the definition or definition; and / or, other matters of a general nature which apply to the following article or several articles, among others, are provisions that reflect the principles, purposes and objectives without being formulated separately in an article or chapter so that the general provisions may consist of several articles. However, the HPI Law still finds inconsistencies in the form of placement of principles and definition of a term outside the general provisions chapter. For example, the definition of marriage in the CHAPTER About the Family.

Furthermore, in terms of the language used in the HPI Law, it still does not meet the characteristics of the language of the laws and regulations, which include:

1. straightforward and definite so as to avoid similarity of meaning or confusion;
2. is sparing in character only the required words are used;
3. objective and suppress subjective feelings (not emotions in expressing goals or intentions);
4. standardize the meaning of words, expressions or terms that are used consistently;
5. provide accurate definitions or definitions;
6. writing words that have a singular or plural meaning is always formulated in the singular;
7. writing the initial letters of words, phrases or terms that have been defined or given definitions of definition, name of position, name of profession, name of government / state administration institution / institution, and types of Legislation and Legislation draft in the formulation of norms written in capital letters.

Thus, the HPI Law has not been able to provide a straightforward and definite formulation of content material that is word-saving. In fact, there are still inconsistencies in standardizing the meanings of the words / terms used where international and transnational terms are used in various parts of the HPI Law. Then, we discovered the use of the terms Internal Law and National Law which can be identified as having the same meaning restrictions. The use of the term HPI problem or case is also a source of inconsistencies found in the HPI Law.

Then in the Article reference technique, fundamental errors were also found, which were not in accordance with the techniques specified in the P3 Law. For example, in CHAPTER II General Principles of HPI International Civil Law, Article 7 paragraph (2) which formulates "... in implementing factual qualifications and legal qualifications as referred to in Paragraph (1) ..." where the reference formulation should be " ... In implementing fact qualifications as well as legal qualifications as referred to in paragraph (1) ... ".

Furthermore, overall based on the results of the observations that have been made, it was found that the referencing technique used was not in accordance with the referencing technique specified in the P3 Law. There is even reference to an article at the part after that article. Namely, the formulation of CHAPTER VIII BINDING refers to the special provisions stipulated in CHAPTER X. Whereas the reference to the article or paragraph which is located after the article or paragraph concerned must be avoided.

Such formal mistakes can be found in the formulation of the HPI Law. Moreover, the combined TRANSITIONAL PROVISIONS AND CLOSING CHAPTER, are clearly contrary to the formal form of statutory regulations. The author assesses that the HPI Law is currently very vulnerable in terms of constitutionality formal tests).

4 Conclusion

The proposal and formation of the HPI Law has validation of authority and justification of urgency, both because of legal needs because Indonesia is a state of law so it needs legal instruments. In addition, this urgency also arises because the formulation of the HPI in positive law can be seen as an effort to protect, recognize and provide legal certainty by the state against civil actions that are transnational in nature or involve foreign elements.

However, the formulation of material and formal values from the HPI Law must be reviewed. Because based on the brief observations that have been made. There were a number of material and formal discrepancies with the content of the HPI Law which had the potential or was vulnerable to undergoing constitutionality testing.

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The Effectiveness of Online Learning During the Covid-19 Pandemic in Asia A Literature Review

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Abstract. The emergence of the Covid-19 virus caused concern around the world in the fields of health, economy, social, politics and education. In the field of education, learning that was previously carried out in classrooms cannot be done temporarily. So that an alternative emerges in the learning method carried out, namely by implementing online and offline learning policies. This online learning is carried out in various countries in the world by utilizing online technology. The purpose of this study is to see the effectiveness of online learning that has been applied in various Asian countries. The method used in this study is a qualitative method with literature and empirical approaches. The data obtained comes from several government regulations, studies of national and international journals and phenomena that occur in the field. The results suggest that online learning conducted in Asian countries has the impact of accelerating the transition and reformation in learning are not yet perfect, so it requires cooperation of all elements of education to support the implementation of online learning.

Keywords: Online learning, Covid-19, education.

1 Introduction

The Corona Viruses Diseases (COVID-19) pandemic is a global pandemic that will hit many countries in the world in 2020 [1]. Covid-19 is an outbreak of a new type of disease that has never been previously identified in humans and the beginning of its occurrence in China, to be precise in Wuhan. Until now, COVID-19 has spread to various regions, including various cities in the world. The existence of COVID-19 has become a multidimensional problem that has disrupted various economic, social and educational situations. One of the impacts in the world of education is to cause a decrease in the quality of learning in students [2].

The regression in the quality of learning occurred due to the closure of schools to prevent the spread of the Covid-19 outbreak [1]. The pandemic emergency period requires the face-to-face learning system to be replaced with online learning so that the learning process continues [3]. Online learning is an educational innovation that utilizes information technology in learning [4]. The use of information technology supports distance learning, thus encouraging greater innovation in creating storage methods inside and outside the classroom [5]. Online learning uses a learning pattern that requires teachers to provide learning materials and teach students directly through remote tools (United Nations, 2020). Meanwhile, according to [6] online learning is a distance education system with the bile method where there are activities that are carried out separately from learning activities.

Online learning studies mean technology as a means and internet network as a system [4]. Based on this understanding, it can be seen that online learning is a learning

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system without face-to-face learning between teachers and students but done online and using the internet network. Teachers must ensure teaching and learning activities continue even though students are at home. Teachers are required to be able to design learning media as an innovation by utilizing online media. Teacher creativity is indispensable in online learning so that learning objectives can be achieved properly.

In Indonesia, the implementation of online learning is also used as an alternative solution in education today [7]. Online learning is carried out starting from various levels of education from early childhood, elementary, junior high school, high school and university. This research was conducted with the aim of providing an objective picture of how online learning activities were during the Covid-19 Pandemic, so that this becomes an evaluation material in creating bold learning that is effective in the midst of the Covid-19 Pandemic.

2 Research Methods

The process of searching for articles to be presented in this literature section is carried out using an internet search engine, which in this case is google scholar, by entering the keywords 'covid impact' and 'education'. From the searches carried out, there were found around 30-125 articles with a span of publication years from 2019- 2020. The criteria for selecting the articles to be reviewed are as follows:

1. The research approach can be in the form of qualitative / quantitative / mix method.
2. The research was conducted in various Asian countries.

3 Results and Discussions

The results and discussion of the literature review article can be seen in table 1.

Table 1. The Impact of Covid-19 in Education

No	Author (Year)	Title	Country	Method	Platform	Findings
1	Bao (2020) [8]	COVID-19 and online teaching in higher education: A case study of Peking University	China	Qualitative	online video tutoring and email guidance	The study concludes with five high impact principles for getting online education: (a) high relevance between online learning design and student learning, (b) effective delivery of online teaching information, (c) adequate support provided by teaching and teaching staff to students; (d) high-quality participation to increase the breadth and depth of student learning; and (e) contingency plans for dealing with unexpected incidents of online education platform.

2	Chung (2020) [9]	Online Learning Readiness Among University Students in Malaysia Amidst Covid-19	Malaysia	Quantitative	Google Classroom and YouTube (vidio learning)	The results of this study generally indicate little to moderate online learning readiness. Some of them are not ready for online learning due to lack of learner control, independent learning and effectiveness of online communication.
3	Fitriyani (2020) [4]	Motivasi Belajar Mahasiswa Pada Pembelajaran Daring Selama Pandemik Covid- 19	Indonesia	Quantitative	Google form	The results of this study indicate that the learning motivation of the sixth semester students of the primary school teacher education program in Kuningan is very good, where the percentage of the motivation score reaches 80.27%. This research is expected to be an evaluation of various parties in organizing online learning in higher education, especially those involving motivation.
4	Priyadarshini (2020) [10]	E-readiness of Senior School Learners to Online Learning Transition amid COVID-19 Lockdown	India	Quantitative	Online learning	The results showed that online pedagogical competencies and digital skills of teachers and students need to be strengthened so that in the future it will be better.
5	Toquero (2020) [11]	Challenges and Opportunities for Higher Education amid the COVID19 Pandemic: The Philippine Context	Filipina	Qualitative	strengthen the practices in the curriculum	The results confirm that educational institutions especially in the Philippines are presented with overcoming challenges in their planning, implementation, and assessment systems. After all, the global pandemic opens up opportunities for countries to improve their modes of education and turn their attention to emerging technology.
6	Al-Mohair (2020) [12]	Study on students' experiences about online teaching	Saudi Arabia	Quantitative	Instructor Performance Online Teaching	The results showed that some students were quite satisfied with the instructor's performance, facilities and internet network speed.

		during COVID-19 Outbreak				Meanwhile, on the other hand, some students were dissatisfied because of excessive assignments and had to do assignments on time.
7	Song (2020) [13]	Results of Survey on Online Teaching for Elementary and Secondary Schools During COVID-19 Prevention and Control	China	Quantitative	Online interactive Q&A, Live streaming, Webcasting/Vidio on demand, TV learning, one-to-one tutoring	secondary schools in China are actively responding to the call of the Ministry of Education meeting to "suspend classes without delaying teaching and learning" by adopting online teaching in a well-planned and well-organized manner..
8	Pratama (2020) [7]	Efektifitas Penggunaan Media Edutainment Di Tengah Pandemi Covid-19	Indonesia	Mix method	Media Edutainment	The results of the study indicate that the majority of students and teachers have a positive perception of using edutainment media (in the questionnaire phase). In addition, through the edutainment media in online learning, the achievement of the cognitive aspects of students (in the test phase) also obtained positive results. So that the overall results show that the edutainment media is effective in accompanying students to learn from home.
9	Chen (2020) [14]	Analysis of User Satisfaction with Online Education Platforms in China during the COVID-19 Pandemic	China	Quantitative	Ding Ding, Tencent Meeting, Tencent Class, Chaoxing Learning, Chinese MOOC	The conclusion suggests that users' personal factors do not have a direct influence on user satisfaction, while platform availability has the greatest influence on user satisfaction.
10	Ichsan (2020) [1]	Covid-19 Dan E- Learning: Perubahan Strategi Pembelajaran Sains Dan Lingkungan Di SMP	Indonesia	Quantitative	WhatsApp, website, Telegram, Google classroom, Line, Edmodo, Microsoft Zoom	The results of this study indicate that e-learning is not yet perfect and needs to be improved.

The results of this study found that there was a positive impact during the pandemic in the field of education in all countries in Asia. As in the Philippines, online learning activities have opened up opportunities to improve educational methods and shift to emerging technologies [11]. Likewise in Saudi Arabia, the implementation of online learning is planned to be carried out in the long term [12]. In line with that, all countries have made innovations in the world of education, such as Indonesia, China and Malaysia. The results showed that online learning activities in various countries in Asia received positive responses. This positive response is in line with the high level of research related to education during the pandemic. Based on Table 1, there are 10 articles that are analyzed consisting of seven quantitative studies, two qualitative studies and one mixed method research. This shows that education and research pay special attention to the corona pandemic. The world of education must innovate and make continuous changes so that the goals of education can be achieved.

In the implementation of online learning there are obstacles that are not only felt by many countries. The problems in online learning activities are in line with the main problem in almost all Asian countries, namely the lack of ability to understand material, this is due to the reach of the internet and the availability of facilities such as laptops / PCs/ Handphones which are inadequate and fully support the online learning process. For example, in India, due to the limited reach of the internet in areas, many students choose to live in cities in order to get a better internet signal [7]. In addition to facilities and the internet, the use of platforms as media in online learning also plays a role. This is very large [14]. In addition to platform use training, training also needs to be held to improve planning, implementation and assessment systems in online learning activities [11]. This is due to differences in face-to-face learning and online learning activities.

Indonesia uses several educational platforms to conduct online learning. In addition, there are several platforms used in Indonesia such as learning videos, interactive media, TV learning, Google Classroom, WhatsApp, Email Zoom, Moodle, Others [15]. China uses Video learning, online interactive, online streaming interactive Q&A, Live streaming, Webcasting / Video on demand, TV learning. Meanwhile, Saudi Arabia, Malaysia, the Philippines and India used interactive learning videos. Online learning which is applied in several Asian countries uses online learning using learning videos. The platforms that are mostly used by Asian countries are interactive learning videos and online using (Google classroom). This platform can help in packaging learning and is interactive, thus helping students to achieve learning goals. This is in line with the use of online learning, most online teaching platforms can provide online learning and interactive modes, which can effectively meet existing teaching needs and provide feedback at any time [14]. This feed back ability has an influence on students' learning motivation, including independence in learning. Itriyani explained that motivation and learning independence during the Pandemic also affected learning goals so that they could be achieved. [4] Independence in learning is also important in exploring every aspect to be studied. Several studies have explained that there is a significant relationship between independent learning and learning outcomes both in direct learning and in distance learning [16]. Online learning that is applied shows that in using it is personal and does not have a direct effect, but the availability of the platform greatly affects user satisfaction. So that platforms in online learning during a pandemic must provide effective education-based information [14]. The success of education based on effective educational information is of course inseparable from government policies related to policy making in education during the pandemic. Both supporting educational facilities, learning media, and the applied curriculum. Example by providing cheap learning facilities,

expanding the reach of the internet and providing free training to teachers in order to use the right educational platform. Meanwhile, the teacher's role is to be ready to learn new things and to be more creative in choosing learning methods for the implementation of the educational process. The role of students is also needed, namely to motivate themselves and start learning not because of obligation but the necessity of life so that they can further develop the potential they already have. The role of parents and society is very much needed in online learning, namely by supporting and accompanying students when participating in online learning. With the collaboration between the government, teachers, students, parents and the community, it is hoped that online learning activities can be carried out optimally so that the expected results can be achieved. In the implementation of online learning that is currently being implemented in various Asian countries there are several obstacles that are experienced. Research conducted in various countries provides an overview of the state of education during a pandemic. Online and offline learning policies are an option during this pandemic. As for the survey carried out in research in the field and seeing the facts that occur in education with the problems are shown in Figure 1.

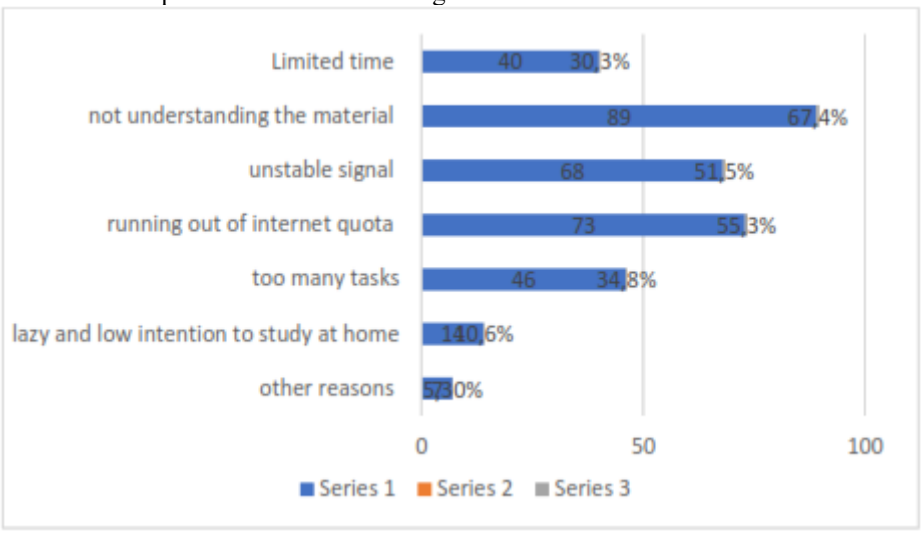

Figure 1. Obstacles during online learning

Based on figure 1 above, there are several obstacles experienced by students and according to a survey conducted on 337 students, the highest Based on Figure 1 above, there are several obstacles experienced by students and according to a survey conducted on 337 students, the highest obstacle was 89 students or 67.4% chose not to understand the material. Understanding of this material is closely related to the ability of teachers to package learning and the ability of students to receive teaching material. This is in line [7] which states that mastery by teachers and students of the media to be used is very necessary so that online learning activities can be carried out optimally. These obstacles in online learning need special attention, such as training of teachers / educators and students and good signal management.

Other obstacles besides not understanding the material are running out of internet quota as many as 73 students or 55.3%, unstable signal as many as 68 students or 51.6%, too many tasks as many as 46 students or 34.8%, Limited time as many as 40 students or 30.3%lazy and low intention to study at home as many as 14 students or 10.6% and the rest chose other reasons 7 students or 5.3%. Based on these constraints, it can be classified into

several criteria, namely 1) obstacles that occur to students, namely laziness and low intention to study at home 2) constraints on learning media, namely material that is not conveyed 3) constraints on the internet network, namely unstable signals and running out of quota internet 4) constraints on assignment, namely limited time and too many tasks. Constraint 1 can be overcome with parental attention and motivation from students themselves. Constraint 2 can be overcome by selecting the right media so that the material can be conveyed. Obstacle 3 can be overcome by using a good internet network, of course the role of the government is expected to expand the internet network and provide additional quota assistance. Obstacle 4 can be overcome by providing training to teachers in order to choose the right assignment and according to the time provided so that students can do other activities such as gathering with family.

Apart from some of the obstacles above, online learning activities indirectly greatly support the transition from manual learning activities to online learning activities. Acceleration in the use of technology that must be experienced and studied by humans for the continuity of the learning process. Both teachers and students must be willing and able to learn to use technology so that learning objectives can be achieved and the learning process continues. So online learning activities force teachers and students to keep changing to adapt to technology so that learning media continues to experience better development.

4 Conclusion

Based on the literature analysis above, it can be seen that online learning allows teachers and students not to be at the same time and place. Covid-19 has caused almost all countries to use online learning as an alternative in preventing the outbreak. In Asia, online learning has had a positive impact as it accelerates migration and reforms in learning but it is still imperfect. The most effective online learning platforms used in Asia are interactive learning videos. The success of online learning requires the willingness and ability of all elements of education to support the implementation of online learning. Education will run well if the government, teachers, students, parents and society can carry out their respective roles well and this will lead to effective learning.

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Effectiveness of Double System Education Programs in Education Curriculum Performance Vocational High School

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Abstract. This research is descriptive in nature with the method of describing students performance appraisal in a number of Vocational High Schools in Jakarta, Bogor and Bekasi that focuses on the assessment of the Dual System Education program. In this study the data analysis technique used is the Stake Model Evaluation Research design, in the form of stages, consisting of input, processes, and outputs, as a process of recording objective conditions, Analysis as a standardized actualization with intensity or objective conditions, and decisions with follow-up recommendations. The results of the evaluation of antecedent components include several aspects: evaluation in the recruitment process of prospective students, teacher administrative requirements, the School curriculum, the PSG program is conducted twice on odd and even semester entertainment, facilities and infrastructure, PSG program financing. It concludes by arguing that double-shift schools appear to offer an adequate education and therefore appear to be a viable solution (at least in the short to medium term) for countries seeking to expand their secondary education systems within resource constraints.

Keywords: Vocational High School, Dual Systems Education, Performance, Curriculum, Students.

1 Introduction

In the era of Industry 4.0, the competition of every company engaged in any sector in any sector of the industry was increasingly sharp. This intense competition requires every company to be able to meet every need and desire of consumers and business partners (markets). With these conditions, every company is required to have Human Resources who have and can provide the best quality of service so that the company can survive in business competition with its competitors. There is a human development approach and the UNDP 2030 Agenda has three general analytical relations [1].

The human development program and the UNDP 2030 agenda are anchored in the universalism of the human development approach by emphasizing increasing freedom for every human being and the 2030 Agenda by concentrating on not leaving anyone behind. The human development program and the UNDP Agenda have the same focus areas to eradicate extreme poverty, end hunger, reduce inequality, ensure gender equality, and so on. The human development program and UNDP Agenda have sustainability as a core principle. Human resources have a very vital role for a company. One of the important activities of human resource management is the assessment of recruitment results obtained from various educational institutions as labor providers, both from secondary education

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institutions (high schools and vocational high schools) to the higher education circles (tertiary institutions). School is a social interaction system of an organization as a whole consisting of personal interactions related together in an organic relationship [2]. Whereas based on Law No. 20 of 2003 concerning SISDIKNAS Article 1 paragraph 1, Education is a conscious and planned effort to create an atmosphere of learning and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and the skills needed by himself, society, nation and country. According to Law No. 20 of 2003 concerning SISDIKNAS Article 1 paragraph 7, the education pathway is a vehicle through which students learn to develop their own potential in an educational process that is in line with educational goals. Law No. 20 of 2003 concerning SISDIKNAS Article 17 explains that secondary education is a continuation of basic education.

Secondary education consists of general secondary education and vocational secondary education. Secondary education in the form of High School (SMA), Madrasah Aliyah (MA), Vocational Middle School (SMK), and Vocational Aliyah Madrasah (MAK), or other forms of equivalent. SMK has been seen as a school/secondary education institution that can produce graduates who can work directly with the required job qualifications and can compete in the labor market. Specifically for SMKs, the Government of the Republic of Indonesia has implemented a Dual System Education System (PSG) in its learning activities (curriculum), which is expected that every student who graduates from a Vocational School has the qualified to be absorbed by various companies that need quality workforce theoretically and practically in the short term, medium term, to long term. Dual system education is expected to be an alternative pattern of learning in vocational schools stipulated in the Decree of the Minister of Education and Culture of Indonesia Number 323/U/1997 article 1 paragraph 1, namely: and synchronize educational programs in vocational high schools with the mastery of skills gained through working directly in real work at a partner institution, directed to achieve a certain level of professional expertise [3].

Fig 1. Indonesian Labor Data Period 1986 - February 2018

The number of the workforce shows a growth trend as Indonesia's population grows. Likewise, the number of labor force employed recorded an increase from year to year. The workforce in 1986 only reached 67 million, then in 2002 it reached 100 million. Data from the Central Statistics Agency (BPS) recorded that the Indonesian labor force in February 2018 increased 1.82% to 133.94 million people from the position in February 2017. While the workforce data that worked grew 2.03% to 127.07 million. As a result, the

number of unemployed people fell 1.93% to 6.87 million. The working age population in February this year reached 193.55 million people while those who were not the labor force 59.61 million people. The Open Unemployment Rate (TPT) in February this year fell by 20 basis points (bps) to 5.13% from February year then and also dropped 37 bps from the position in August 2017. TPT This is the lowest since 1998. In fact, there is still a significant gap between the number of SMK graduates and the amount that is able to be absorbed by industry and the world of work. From the TPT, as the Head of BPS stated that the most unemployed were graduates of Vocational High Schools (SMK) which were 11.41 percent [4].

The majority of SMKs in Indonesia do not provide good feedback on industry needs today in the form of personal communication, adaptability, managerial ability, ability to solve problems both working individually or in groups, or other forms of feedback to students regarding the quality of skills that have been achieved. These data indicate that almost all SMKs in Indonesia are still ineffective in producing alumni who have high quality skills or minimum skills expected by companies in the world of work. The various unclear procedures and standardization of PSG applied by each Vocational School in producing the skills of graduates of the Vocational School alumni have an impact on students' discomfort and unfairness, such as related to the low hardskill and soft skills obtained by students. This has become one of the factors of the highest high unemployment rate, which is 11.41 percent of vocational high school (SMK) graduates [4]. Some even argue, in Indonesia, many people are highly educated, but have low abilities. Departing from these conditions, there needs to be improvement in terms of preparing and implementing a curriculum that is truly based on the needs or demands of the industry, namely by implementing the PSG (Dual System Education) program more seriously, the PSG Program must be able to accommodate all needs, both the needs of the company and the needs of employees. One method that can be used to measure the level of success of the PSG program is applied to the level of quality of skills (hardskill and soft skills) of students, the Behaviorally Anchor Rating Scale Method. Behaviorally Anchor Rating Scale Method is a valuation method that aims at a combination of critical incidents and ratings (quantified ratings) using a scale that specifically describes good and bad performance [5]. This method can be the right solution. This is because this method is very accurate in assessing the work behavior of each employee [5]. In addition, the Management by Objectives method can also be used. This method can be an answer to the industry's needs for the quality level of effective student and school skills. This is because this method contains a set of standards that are the target of the achievement of every student and school that can be measured periodically. This standard can be a reference for Vocational High Schools to determine the level of productivity of each student. Through this level of student productivity companies (industry) and schools can assess the extent of the performance of each prospective employee and alumni of their students effectively. It is expected that by using these two methods, all Vocational High Schools in Indonesia will be able to create comfort and justice and be able to motivate students to improve the quality of their skills.

2 Research Method

This research is descriptive in nature by describing a symptom, event and event that is happening at this time. This method seeks to illustrate the problem regarding the performance / skills assessment of students in a number of vocational high schools

(Vocational High Schools) in Bogor and Bekasi districts which are the focus of research in which the assessment of the PSG program on the quality of skills of students which has so far been performed is ineffective or inappropriate with the needs and desires of the industry / company. The population includes all stake holders in several SMKs, namely students, teachers, employees, school management and related parties of the program. The selection of informants (samples) purposively according to the criteria was obtained by 12 key informants, namely a School Principal, a Vice Principal in the curriculum and energy sector, a Program Person in charge, a New Student Admission Committee, three Productive Teachers involved in the program, three Students, and two Instructors in the pair industry. Referring to the characteristics of this study, the data collection techniques used in this study include:

1. Observation is basically recording activities on something by utilizing sensory functions (visual).
2. Interview is essentially a process of communication between two or more people who have certain goals.
3. The questionnaire is a data collection technique that is done by giving a set of questions or written questions to respondents to answer [6].
4. Documentation is a data collection technique sourced from documents (written/textual material, films or other recordings) that are not specifically prepared because of a request from a researcher [7]. The documentation method is a method of collecting data sourced from written goods [8], documentation studies are data collection techniques that are not directly addressed to research subjects. The validity of the findings or data in research is absolutely necessary to meet the scientific principles of research. To guarantee the validity of the data obtained is done through checking or checking the data, then the credibility of the data is done by several techniques [7], namely:
    a. Triangulation of sources.
    b. Triangulation of methods / techniques.
    c. Triangulation of peers.
    d. Theory triangulation.

In this study to obtain valid data done by triangulation of sources and triangulation of methods / techniques. In this study the data analysis technique used is the Stake Model Evaluation Research design, in the form of:

1. Stages, consisting of inputs (antecedents), processes (transactions), and results (outputs).
2. Observation, as a process of recording objective conditions.
3. Analysis, as a standard actualization with objective intensity or conditions.
4. Decisions with follow-up recommendations.

From the design of the evaluation model above the researcher takes the example of a dual system education evaluation adopted from the results of previous research or relevant research conducted by A.Muliati AM, who builds a terms of reference involving three components of the stakeholder model evaluation, the three components are as follows: Evaluation at the input stage contains the analysis of issues related to what conditions existed before the program was implemented and factors that would influence, identify and assess system capabilities, alternatives, strategies, programs, design procedures for implementation strategies [9]. Evaluation of input program is oriented towards a program that can be achieved and what is desired, sub-components that are the focus in evaluating the input of multiple system education programs. Evaluation at the process stage is an evaluation that is designed and applied in a practical process or guiding in the

implementation of activities, including identifying procedures for implementing both the management of events and activities, to reveal the implementation of multiple system education. Evaluation of results is an evaluation conducted in measuring the success of achieving the goals set. Outcome evaluation activities are efforts to measure and interpret the results achieved from a program.

3 Results And Analysis

3.1 Results

Antecedent component. The results of the evaluation of the antecedent component include several aspects: The first aspect, there are 3 (three) sub-aspects that are evaluated in the recruitment process of prospective students, namely not color blind, physically and mentally healthy, and interview tests, all of which are included in the high category. No color blindness is the main requirement for students who will enter SMK Negeri 51 Jakarta, SMK Yadika 9 Bintara Bekasi & SMK DarmawanSentul - Bogor, because if students are color blind the students will not be able to distinguish the factors of production. On recruitment, when registering students are required to bring a health certificate from the health center. After the prospective students were accepted, the school conducted a test that was not color blind, and was physically and mentally healthy again, even though at the beginning the prospective student brought a certificate from the puskesmas. The sub-aspect of the interview test does not determine whether the student is accepted or not but only to find out whether the prospective student who enrolled is indeed the student's own wish or the wish of the parents. In addition, interviews were conducted to find out whether parents are ready with school funding for their children.According to Law Number 20 of 2003 that vocational education is education that prepares students to work in certain fields. Related to the process of student recruitment in the antecedents component, the requirements to be able to attend education in this school are non-negotiable requirements because they relate to the field of work after the students have completed their education. If the student is color blind, how can work in the field of Tourism & Hospitality, Office Administration & Management, and the field of Arts & Creative Industries that require accuracy in their work and are based on differences in the factors of production used.

The second aspect, teacher administrative requirements. All productive teachers have a Bachelor's degree in Tourism & Hospitality, Office Administration & Management, and Creative Arts & Industry and professional certificates in Tourism & Hospitality, Office Administration & Management, and Creative Arts & Industry. They also teach according to a diploma. Their teaching experience is> 5 years, to be exact since school was founded. Productive teachers with training experience consist of 5 -> 10 people from 10 -> 20 teachers at SMK Negeri 51 Jakarta, SMK Yadika 9 Bintara Bekasi & SMK Darmawan Sentul - Bogor. Training/education and training that are followed by productive teachers are education and training to carry out cross- supervision when the productive component UN takes place. Because education and training are routine once a year, the number of teachers who have experience in training will increase every year. Increasing the competence of educators becomes a necessity, as Hamalik points out, vocational education is a form of talent development, basic education skills, and habits that lead to the world of work which is seen as training in skills. Based on this, of course it takes teachers who have competent competence [10].

The third aspect, curriculum. The school implements the 2006 curriculum (KTSP). The competency standards applied in this school are relevant to SKKNI. Schools have not 100% synchronized curriculum with industry, so the curriculum structure still uses a standard curriculum structure.

The fourth aspect, academic calendar. Observation results show: PSG program carried out twice, namely: on odd semester holidays and even semester holidays.

The fifth aspect, facilities and infrastructure. 75% of school facilities and infrastructure are appropriate. So it is included in the high category.

The sixth aspect, PSG program financing shows a low category. This will certainly have an impact on the implementation of other activities, so that in its implementation schools need operational funding assistance from the school foundation, the central government and the Regional Education Office.

Transactions component. The results of the observations of the transaction component include KBM consisting of 4 aspects and 16 sub-aspects, and training activities in the industry consisting of 3 aspects and 14 sub-aspects. Of the 16 sub-aspects of the KBM, 15 sub-aspects fall into the high category and 1 sub-aspect in the low category. Of the 15 high-quality sub-aspects, namely: the making of lesson plans, preparation of standard competency assessments/tests, teacher mastery in presentation of material based on competencies, competency-based learning, use of methods/media that vary according to competence, use of learning modules according to competence, use of materials/standardized practice tools, giving competency tests at the end of PBM, providing remedial material for students who are not yet competent, giving attention to all students, giving feedback every KBM, intensity of feedback, administration of collaborative texts with industry, placement of practice work for class XI students, and presentation of student work practices. The high category in the KBM sub-aspects was achieved because of the strong commitment of each subject teacher, especially productive subjects and because of the leadership and support of the School Principal who was very cooperative, transparent, full of responsibility, and able to create a family climate.

In addition, the availability of adequate facilities and student motivation is quite high. These factors are very supportive of the achievement of KBM in this school with a high category. One sub-aspect is categorized as low, related to KBM, namely the preparation of learning modules based on competence. Productive teachers who teach basically have special notes related to the learning material that will be delivered to students. These notes if compiled based on the systematic writing of a book, it can be said as a learning module. Learning modules that are prepared by the subject teacher who teaches in a class can have a positive impact on learners in the form of learning motivation, because the modules they use are prepared by their teachers not by others.

Furthermore, aspects of training activities in the industry include 3 aspects with 14 sub-aspects. Of the 14 sub-aspects all included in the high category, namely: place of work practice in the field of Tourism & Hospitality, Office Administration & Management, and the field of Arts & Creative Industries, industry experience accepting student work practices for at least 1 year, minimum instructor education background D3, instructor work experience of at least 1 year, experience of guiding instructors of at least 1 year, there are even some teachers and instructors with Masters degrees. Mastery of student work practices including high categories, strategies / methods of guidance that vary, jobs are trained in the industry in accordance with the competency of the student's expertise program, practice time is at least 2 months, use of equipment and practice materials according to standards, complete journal entries by students ≥ 90% , assessment of the results of work

practices ≥ 80% with the correct assessment procedures, granting certificates of work practice in industry 90% of the number of students, and monitoring from teachers at least once a month.

Giving a certificate of work practice in the industry is given to all students who take the PSG program. The certificate is given by the school based on the place of work practice of each student, that is the Community Health Center where students carry out work practices. Certificate of work practices at partner institutions other than government companies, private to state and private higher education in the form of certificates have not been obtained by all students.

Outcomes component. The results of the observations of the components of outcomes include 4 aspects, namely the results of the UN, Productive Component UN results, Absorption of graduates in the world of work, and waiting time for graduates to be absorbed in the world of work, and 6 sub-aspects, namely: a minimum of 50% of students receive a Mathematics UN score ≥ 55 .0; a minimum of 50% of students receive an English Language UN score ≥ 55.0; a minimum of 50% of students receive an Indonesian Language UN score ≥ 55.0; at least 90% of graduates have a UN Productive Component score of ≥ 70; and certified, graduates are absorbed in the world of work ≥ 80%, and a minimum of 50% graduates have a waiting time of <2 months.Of the 3 aspects evaluated from the first aspect, all results of the UN (National Examination) which reach objective standards. Nevertheless, the basic abilities of students related to English subjects must continue to be improved, this is because in practice the mastery of English students is still weak and only theoretically mastered. The second aspect is the results of the productive component UN have a high category because 100% of graduates have a value ≥ 70.0; and all graduates are certified.

The third aspect is the absorption of graduates in the world of work that have not yet reached an objective standard, namely the absorption of graduates in the world of work ≥ 80%. The absorption of graduates in the world of work which is only 68% - 78% should be a serious concern of the school management, because absorption is the final goal to be achieved. The success or failure of the school program can be seen from how much graduates are absorbed in the world of work. Tracing of graduates should be done systematically, so schools can find out the conditions of graduates.

The fourth aspect is that the waiting time for graduates to be absorbed in the workforce has met the objective standard, which is less than one month graduates are directly absorbed in the world of work. The waiting time of only one month is a school achievement, because it proves the confidence of the industrial world in the graduates that are quite high. The objective standard for waiting time is bulan 2 months, because after graduation is declared graduated in June, 2 months later is the ideal waiting time, because if 2 months have not been absorbed in the industry, graduates can make other efforts such as registering at tertiary institutions to continue lecture while waiting for a job call in the industrial world. Based on the findings it can be seen the relationship between the components being evaluated, namely:

1. In the recruitment process, it does not require the UN results as a condition for the admission of new students and the absence of an academic potential test causes the school not to know the academic potential of the student properly, so in compiling programs related to improving the quality of education in this school is not based on authentic data. This results in national examination results in mathematics and English that reach the criteria, namely 65-86% of students receive a Mathematics and English score ≥ 55.0 but in practice there are still some students who are weak in both speaking, listening and writting (TOEFL, IELTS, etc). This is illustrated

by Muliati's research, which conducted a document search of the average academic test scores from three subjects, namely Indonesian, English and Mathematics, and tracing the Vocational High School Values [9]. With the data they have, schools can arrange programs to improve the quality of education and prepare their students for the coming national exams. Based on these conditions, Muliati found that 98% of students passed the UN, and 93% of students passed the Productive Components UN.

2. Schools focus on the transactions component. This can be seen in the results of the evaluation where there are only 1 sub-aspects that do not meet objective standards. This condition led to the productive component UN results of all students Graduating with a value of dengan 70.0 and being certified.
3. In the antecedents evaluation, recruitment of prospective students needs to be improved: the academic potential test needs to be conducted, although it is not used as a benchmark for acceptance or failure of prospective students, the test results can be used as material for mapping students' basic abilities and as a reference data for the UN results improvement program.
4. Curriculum, it is necessary to pay attention to synchronizing the school curriculum with the needs in the Tourism & Hospitality industry, Office Administration & Management, and the Arts & Creative Industry sector. Funding is an equally important resource for improving the quality of education. Schools need to empower all existing potential in order to obtain sources of funding through production units or sponsors.
5. Assessment of the implementation of student work practices in industry is very important. Assessment to measure students' abilities and become input for the school about the relevance of the material in schools with work standards in the industry.
6. National Mathematics and English National Examination scores that do not meet practical criteria should receive attention from school management, especially the mapping of students' basic abilities through tests of academic potential. The absorption of graduates in the world of work who have not yet reached the criteria can be overcome by holding a job fair for graduates who have just graduated so that graduates can be fully absorbed in the world of work.

3.2 Analysis

Of the 3 aspects evaluated from the first aspect, all results of the UN (National Examination) which reach objective standards. The second aspect is the results of the productive component UN have a high category because 100% of graduates have a value ≥ 70.0; and all graduates are certified. The third aspect is the absorption of graduates in the world of work that have not yet reached an objective standard, namely the absorption of graduates in the world of work ≥ 80%. The absorption of graduates in the world of work which is only 68% - 78% should be a serious concern of school management, because absorption is the final goal to be achieved. The fourth aspect is that the waiting time for graduates to be absorbed in the workforce has met the objective standard, which is less than one month graduates are directly absorbed in the workforce. The waiting time of only one month is a school achievement, because it proves the confidence of the industrial world in the graduates that are quite high. The objective standard for waiting time is bulan 2 months, because after the graduate is declared graduated in June, 2 months later is the ideal waiting time, because if 2 months have not been absorbed in the industry, graduates can

make other efforts such as registering at tertiary institutions to continue lecture while waiting for a job call in the industrial world.

This is in accordance with the best strategic priorities in order to increase public interest in education in order to achieve educational productivity in the future, namely "Increasing Managerial Input Skills, Growing market/marketing share, Optimizing Capital / facilities and infrastructure. which is owned by an educational institution" [11].

4 Conclusion

The conclusions from the evaluation results can be described as follows:

4.1 Antecedents

The results of the evaluation of the antecedent component include several aspects: The first aspect, there are 3 (three) sub-aspects that are evaluated in the recruitment process of prospective students, namely not color blind, physically and mentally healthy, and interview tests, all of which are included in the high category. No color blindness is the main requirement for students who will enter SMK Negeri 51 Jakarta, Yadika 9 Bintara Bekasi Vocational School & DarmawanSentul Vocational School - Bogor, because if students are color blind students will not be able to distinguish the factors of production when working in the industrial world. The second aspect, teacher administrative requirements. All productive teachers have a Bachelor's degree in Tourism & Hospitality, Office Administration & Management, and Creative Arts & Industry and professional certificates in Tourism & Hospitality, Office Administration & Management, and Creative Arts & Industry. They also teach according to a diploma. Their teaching experience is> 5 years, to be exact since school was founded. Productive teachers with training experience consist of 5 -> 10 people from 10 -> 20 teachers at SMK Negeri 51 Jakarta, SMK Yadika 9 Bintara Bekasi & SMK DarmawanSentul - Bogor. Training / education and training that are followed by productive teachers are education and training to carry out cross-supervision when the productive component UN takes place. The third aspect, curriculum. The school implements the 2006 curriculum (KTSP). The competency standards applied in this school are relevant to SKKNI. Schools have not 100% synchronized curriculum with industry, so the curriculum structure still uses a standard curriculum structure. The fourth aspect, academic calendar. Observation results show: the PSG program is carried out twice, namely: on odd semester holidays and even semester holidays. The fifth aspect, facilities and infrastructure. 75% of school facilities and infrastructure are appropriate. So it is included in the high category. The sixth aspect, PSG program financing shows a low category. This will certainly have an impact on the implementation of other activities, so that in its implementation schools need operational funding assistance from the school foundation, the central government and the Regional Education Office.

4.2 Transactions

The results of the observations of the transaction component include KBM consisting of 4 aspects and 16 sub-aspects, and training activities in the industry consisting of 3 aspects and 14 sub-aspects. Of the 16 sub-aspects of the KBM, 15 sub-aspects fall into the high category and 1 sub-aspect in the low category. Of the 15 high-quality sub-aspects, namely: the making of lesson plans, preparation of standard competency assessments / tests, teacher

mastery in presentation of material based on competencies, competency- based learning, use of methods / media that vary according to competence, use of learning modules according to competence, use of materials / standardized practice tools, giving competency tests at the end of PBM, providing remedial material for students who are not yet competent, giving attention to all students, giving feedback every KBM, intensity of feedback, administration of collaborative texts with industry, placement of practice work for class XI students, and presentation of student work practices. The high category in the KBM sub-aspects was achieved because of the strong commitment of each subject teacher, especially productive subjects and because of the leadership and support of the School Principal who was very cooperative, transparent, full of responsibility, and able to create a family climate.

4.3 Outcomes

The results of the observations of the components of outcomes include 4 aspects, namely the results of the UN, Productive Component UN results, Absorption of graduates in the world of work, and waiting time for graduates to be absorbed in the world of work, and 6 sub-aspects, namely: a minimum of 50% of students receive a Mathematics UN score ≥ 55 .0; a minimum of 50% of students receive an English Language UN score ≥ 55.0; a minimum of 50% of students receive an Indonesian Language UN score ≥ 55.0; at least 90% of graduates have a UN Productive Component score of ≥ 70; and certified, graduates are absorbed in the world of work ≥ 80%, and a minimum of 50% graduates have a waiting time of <2 months.

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Principle Transformational and Intructional Leadership Styles to Create Effective Schools: A Literature Review

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Abstract. The literature review was conducted to determine the transformational leadership style and instructional leadership of school principals to effective schools in various countries in the world including Indonesia. The study used the literature review method by examining journal articles about transformational leadership styles and instructional principals towards effective schools. The results of this literature review show that effective schools are positively influenced by transformational and instructional leadership styles in various countries including Indonesia. This finding only analyzes journal articles. This finding will provide stakeholders with information on the findings implying the importance of the principal transformational and instructional leadership style in creating effective schools.

Keywords: transformartional leadership style, instructional leadership style, effective schools

1 Introduction

In an effort to realize effective school, it cannot be speraretd principal transformasional and indtructional leadership styles. Why is important? Johnson (1997) in Kirk DJ & Jones TL (2004,4) mentions five important elemements in effective schools; (1) efeftive adaministratives leadership, (2) positive expectations, (3) curriculum that is strong integration, (4) joint decision making, (5) campuses that have board responsibilities for teaching and succeeding. Efective school development will never be maximally successful whithout the role of the principal's quality leadership styles. The transformational and instructional leadership style of the principal is one of the leadership styles capable of implementing an effective school. Taylor (1990) Effective schools are schools that can manage all the resources they have to ensure that all students without exception can participate in all school program activities. Form the statement of this theory, the authors make the basis that to create an effective school can organized the influence of the leadership styles of principal transformational and instrucktional in realizing an effective school.

Effective schools are schools that have a level of compatibility between the results achieved with the plan and the results set in advance [1]. Effective schools have an open and

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reliable management system to manage all the school resources they have in order to achieve school goals effectively and efficiently. The length of education carried out in a school determines whether the school is progressing or not in achieving the expected goal [2]. Therefore, effective schools emerge and schools are not effective. Effective schools have the ability to adapt to school programs that are prepared in order to achieve school goals. Effective schools always perfect their programs every year so they can develop students' competencies that are adaptive to every development of science and technology and the global environment [3].

Effective schools are marked by: (1) effective principal leadership, (2) a conducive work environment characterized by collaboration and team work, (3) clarity of educational goals in schools that focus on achieving high student achievement, (4) collaborative planning, (5) stability and staff development in integrated and sustainable manner, (6) school's focus on high student's achievement, (7) safe learning environment, (8) comprehensive measurement tools for student learning success monitoring, (9) recognition/direction of student's achievement, (10) adequate school resources for the achievement of learning achievement, (11) district government's support, and (12) high parental and broad community participation [4]. The principal is a schools need a leader who can manage and carry out managerial functions, namely the role of the principal as well as acting as a teacher [5]. In other words, a teacher is given the additional task of being the principal to carry out the school leadership function [6]. Thus the principal can be called a Thus the principal is a school manager. The school principal plays an active role in coordinating the improvement of the quality of education in schools.

The principal has an important role in improving the quality of school education [7]. The principal is responsible for all educational program activities carried out within the school and carries out his role as managerial. The managerial functions of the principal include: planning, organizing, directing, motivating, implementing, organizing, controlling, evaluating and innovating[8] .

A good school principal must have the ability and strong desire to advance the school he leads. The principal's leadership style has an important role in achieving the school's goals, which is to develop the school. Its effectiveness is able to answer every school's needs according to the role and function of the principal [9]. The role of the principal's leadership in increasing school success has several supporting factors. Where effective school success is characterized by effective leadership of principals [10] (Day, 2000). The successful implementation of change in primary schools is supported by internal agents, especially school principals. While [11] researches found that an effective headmaster's leadership was one of the important factors in achieving school achievement.

Those who follow a transformational leadership style are able to bring about positive changes [12]. Transparent leadership is able to direct all of its followers to achieve mutual success, have positive thinking and pay attention to the progress of all its members [13]. In addition, transformational leadership can master situations and be able to explain their vision and mission with confidence [14]. In practice, transformational leadership is able to move all members to be actively involved in achieving goals [15].

Instructional leadership places more emphasis on learning which includes curriculum, teaching and learning processes, assessment of teacher assessments and development, school services and community development within schools [16]. The purpose of instructional leadership is to facilitate learning so that students increase their learning achievement, increase their learning satisfaction, increase their learning motivation, increase their curiosity, creativity, innovation, entrepreneurial spirit, and increase their awareness to continuously learn throughout life because science and technology and art develop rapidly [17]. Improving the quality of

student learning is strongly influenced by the role of instructional leadership, and can provide encouragement and direction to school residents to improve student learning achievement. [18].

Studies on the influence of transformational and instructional principals' leadership styles on effective schools have been widely studied before [19], [20]. Previous studies generally only explained two variables, not all of the variables were reviewed together. For this reason, this study was conducted to analyze the influence of the principal's transformational and instructional leadership style on effective schools. This study is expected to be used as input for policy makers related to the influence of the principal's transformational and instructional leadership style on effective schools.

2 Literature review

2.1 Principle

The school is led by a school principal, where the principal is elected, appointed and appointed and legally assigned to perform and carry out his role as manager and management functions [21]. The principal can be defined as the leader of a school or an institution [22]. Teachers who have been selected for additional duties as school principals are school leaders and carry out their functions [23]. Based on the understanding that has been mentioned in the previous sentence, it can be concluded that the principal is the school leader who carries out the functions of school management.

The principal has a role that influences the running of the existing system in schools. The principal has a role in improving the quality of education [24]. The principal is responsible for the administration of education, school administration, coaching other education personnel, utilizing and maintaining facilities and infrastructure as well as being a supervisor. In order for schools to achieve their goals effectively and efficiently, the principal must carry out managerial functions such as planning, organizing, directing, providing motivation, implementing, organizing control, evaluation and innovation. The principal is responsible for the management of education on a micro level, which is directly related to the learning process. Basically, school management is the responsibility of school principals and teachers [25].

According to [26] the skills that need to be possessed by the principal are as follows: leadership skills: leaders must master the ways of leadership, have leadership skills in order to act as a good leader. For this reason, among others, he must master how to: make a joint plan, invite members to participate, set limits to group members. Cultivate the group's "morale", jointly make decisions, avoid "working on the group and working for the group and develop working within the group, divide and hand over responsibilities. To obtain the above skills need experience and therefore leaders must really get along, collaborate and communicate with the people they lead. The important thing is not only to know, but to be able to carry out.

Skills in human relationships: human relationships are human relationships. There are two types of relationships that are commonly encountered in daily life: 1) functional or formal relationships, namely relationships due to official duties or official work and 2) personal or informal relationships or personnel relations are relationships that are not based on official duties or work , but more familial. A leader must be skilled at carrying out the relationships mentioned above, not to confuse functional relations and personal relationships. Central to this relationship is mutual respect. Subordinates respect superiors and superiors must respect subordinates [27].

Skills in group processes: each group member has differences, some are more, some are lacking, but in groups they must be able to work together. The main purpose of the group process is how to increase the participation of group members to the fullest so that the potential possessed by group members can be fully utilized. The core of the group process is human relations and shared responsibility. Leaders must be mediators, conciliators, moderators and not become judges [28].

Skills in personal administration: personnel administration includes all efforts to use the expertise and capabilities possessed by officers effectively and efficiently. Activities in personnel administration are selection, appointment, placement, assignment, orientation, supervision, guidance and development as well as welfare. Finding the most important of the activities above is the selection activity in selecting the people who are most in line with their tasks and work based on "the right man in the right place" [29].

Skills in valuing: appraisal is an attempt to find out to what extent an activity can already be carried out or to what extent an objective has been achieved. What is usually assessed is the results of work, ways of working and people who do it. The evaluation techniques and procedures are determining the purpose of the assessment, setting norms / measures to be assessed, collecting data that can be processed by the specified criteria, processing data and concluding the results of the assessment. Assessing evaluation, the teacher can be assisted in his own work, knowing the weaknesses and strengths. In addition to teachers, other personnel need to be evaluated such as administrative staff, counseling guidance officers to find out their progress and shortcomings [30].

In carrying out its functions and duties, the head of an educational institution or school principal needs to pay attention to good decisions, which are those that meet the following requirements: 2) the decision taken must meet the requirements of rationality and logic which means that it demands a scientific approach based on various theories and principals successfully developed by experts; 3) decisions taken using a scientific approach combined with creative, innovative, intuitive, and even emotional thinking styles; and 4) decisions taken must be implementable. decisions taken must be accepted and understood, both by the group leader responsible for carrying out various activities in carrying out the decision and by the operational implementers [31].

2.2 Principal‘s leadership

Scientific analysis of leadership begins by focusing on the leader himself. Research on effective leaders is not based on a particular human nature, but lies in how far the nature of a leader can overcome the conditions they face. The qualities possessed by effective leaders include: piety, honesty, intelligence, sincerity, simplicity, breadth of views, commitment, expertise, openness, breadth of social relations, maturity, and justice. Wexley & Yulk stated that there are several requirements to become an effective leader, namely abilities that are higher than the average subordinate, among others: 1) have sufficient intelligence, 2) have the ability to speak, 3) have confidence, 4) have initiative, 5) have achievement motivation, and 6) have ambition. Newstrom an effective leader is: charisma, flexible and adaptive, the ability to think, honesty and integrity, personal desires, desire to lead, confidence, knowledge, positive feelings, creativity and originality.

Leadership effectiveness is influenced by various factors, such as; the type and nature of the group being led (organizational and group goals), the time factor, the resources used, the productivity factor achieved, the collaboration factor between the leader and the person being led [32]. According to the results of the study there are several ways to become an effective

leader, in this case the researcher adjusts to the current conditions, namely: a) Recognizing the strengths and weaknesses in a leader; b) Recognizing leadership style, which means that a leader has his own characteristics and style of leadership and is able to control it; c) Recognize who is being led, in this case the strengths and weaknesses of the people they lead; d) The nature of the work needs to be adapted. For those with high creativity and entrepreneurial tasks, the nature of the work may be interested in setting broad goals for your subordinates and then allowing them to try / assess them to work towards these goals [33].

According to [34] there are several components that enable school principals to exert influence in their leadership, namely: a) authority, namely the formal right to make decisions; b) power, i.e. the ability to give reward or punishment; and c) influence, that is, the ability to have the decision to implement without being related to authority and power.

2.3 Transformational leadership

According to [35] Transformational leadership has the trust, admiration, loyalty and respect of its followers, and its followers are able to do more than expected. Transformational leaders are able to provide motivation or encouragement towards goals that will be achieved together.

According to [36] transformational leadership, a leader who provides knowledge and ways of thinking in responding to everything and has the authority to lead. Meanwhile, according to Newstrom and Bass (in Sadeghi & Pihie, 2012) Transformational leaders have certain characters, including being trustworthy and fair, having clear goals, having high expectations, providing support and appreciation, encouraging them, and directing followers to see things that can be achieved more than what they think Transformational leaders have certain characters, including being trustworthy and fair, having clear goals, having high expectations, providing support and appreciation, encouraging them, and directing followers to see things that can be achieved more than what they think.

Based on some of the opinions above, it can be concluded that transformational leadership is a charismatic leader and has a central role and strategy in bringing the organization to achieve its goals. Transformational leaders must also have the ability to equate the vision of the future with their subordinates, as well as enhance the needs of subordinates at a higher level than what they need. Interaction arising between leaders and subordinates is characterized by the influence of leaders to change the behavior of their subordinates into someone who feels capable and highly motivated and strives to achieve high and quality work performance. Leaders influence followers so that organizational goals will be achieved.

There are four transformational leadership identified [37], 1) school leaders provide role models in school attendance and care for their members, especially those with low performance; 2) as a school administrator must have a strategy in solving existing problems; 3) as an inspiration for school members and 4) to be a role model for all school residents [38].

2.4 Instructional leadership

“Instructional leadership is conceptualize instructional leadership as an organizational property aimed at school improvement [39]. Instructional leadership focuses on teaching and learning and on the behavior of teachers in working with students. Leader influences are targeted at student learning via teachers [40]. Instructional leadership as follows: 1) Instructional leader: The principal was expected to serve as an instructional leader, guiding teachers toward productive learning experiences; 2) Problem solver and resource provider. The principal was

responsible for solving problems and resources to facilitate the teaching and learning process; 3) A visionary leader. The principal was expected to develop and communicate an image of the ideal school; and 4) A change agent. The principal was expected to facilitate needed changes in educational operations to ensure effectiveness" [41].

"It seems that instructional leadership is little more than a shorthand way of describing those leadership influences and practices within an organization that impacts upon student achievement. Three domains of instructional leadership are: defining the mission of the school, creating a positive learning climate, and supervising school teaching programs" [8].

2.5 Effective school

Effective schools are schools whose orientation focus is to improve quality and implement data-based updates. School progress becomes the center of attention for the development of the quality of learning. [42]. Applying school principles is effective in improving the quality of the process so that it has an impact on increasing the number of students who achieve good academic achievement, or at least no students have decreased their performance. Effective schools also have effective principals and teachers. According to [43] The principal acts as an effective and interactive leader and continuously states the vision of the school to all school members.

Components characteristic of school effectiveness include management, leadership, commitment, strategic environment, expectations, school climate and the role of government [44]. Leadership, management focus is based on the educational institution concerned, the process emphasizes actual organizational development procedures and effective use of time, centered on results and goals that are clear and measurable, all members have high commitment and expectations of the organization. Leadership, optimal functioning of organizational components and managerial effectiveness are characterized by direct and strong instructional leadership by school principals, teacher performance and professional education staff supported by technological capabilities, environmental development, good opportunities, individual skills, and strong motivation with full of creation and innovation.

Commitments, principals, teachers and education personnel describe attitudes a) consistent, b) have commitment, c) have high integrity, d) broad and open minded, e) be honest, f) confident, g) creative, and so on marked by the relationship of planning and collegiality supported by good, strong and adequate rules that are widely understood. The strategic environment, the synergic involvement of informal groups, individual needs and the goals of the bureaucracy together can play an optimal role so that the realization of staff stability is characterized by a harmonious and organized organizational climate relationship.

Expectations, high expectations and the effectiveness of teaching by teachers with effective use of time, and the development of adequate educational institution staff and pay attention to the condition of physical facilities for learning. School climate: An organized climate of work orientation, calm, work-oriented education, maintenance and achievement of academic results, and regular monitoring of the progress of personal activities and student learning progress. The role of government, the existence of central government support is related to standardization, provincial and district / city government support in relation to budget services and school facilities, and there is sufficient support from parents and the community.

3 Research methodology

This research is a literature review by examining 45 good sources of books, journals, theses, and dissertations on transformational leadership styles and instructional principals towards effective schools. This study is presented for all readers who want to know information and want to do a more in-depth study of transformational and instructional leadership styles for effective schools [45]. The author conducted a study of this literature after determining the topic of writing and establishing the formulation of the problem, before plunging into the field to collect the necessary data.

Data collection is done by using google scholar searching for articles and international and national journals with the keywords leadership, school principals, effective schools. Searches range from 2016-2020. The search criteria performed are as follows: 1) qualitative results about leadership, 2) qualitative results about the principal's leadership model, 3) qualitative results about effective headmaster's leadership, 4) qualitative results about emotional leadership, 5) quantitative results about effective school, 6) dissertation and thesis and 7) research using English and Indonesian.

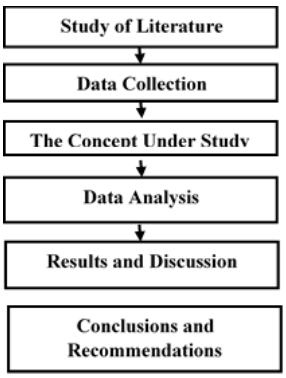

Fig. 1. Flow of literature review

4 Results and discussions

4.1 Effect of principal transformational leadership style on effective schools

Based on the results of the literature review conducted by the author there is an influence of the principal's transformational leadership style on effective schools, it was found that there was a positive and significant influence on the principal's transformational leadership style on effective schools. Principals need to pay attention to the leadership style they use in encouraging and directing their subordinates so that they can improve their performance better, so that an effective school is realized. Every school always hopes to achieve the goals of schooling, where to achieve them requires an important role for all teachers. Teachers who are capable and capable of carrying out their work with results that are in line with the expectations of the school are very beneficial. So that teachers are more enthusiastic in carrying out their work, it is appropriate for schools to pay attention to the attitude of the principal. The principal must apply the leadership style to manage his subordinates, because a leader will greatly influence the

success of the school in achieving its goals [46] . According to [47] leadership style is a method used by principals in interacting with their subordinates.

One of the leadership styles that are considered capable of improving employee performance is the transformational leadership style. According to [48] Transformational leadership is able to give enthusiasm and arouse teachers, so that they can achieve good performance in achieving school goals. Transformational leadership is leadership that is able to bring change in every individual involved and / or for the entire organization to achieve higher performance.

Several previous studies related to the findings of this study [49], [50], [51], [52], [20], [53], [54], [55], [56], [57]. The findings of this previous study reinforce that there is a positive and significant influence on the principal's transformational leadership style on effective schools. So the principal needs to implement it in schools so that an effective school is realized.

4.2 Effect of principal instructional leadership styles on effective schools

The existence of the principal's instructional leadership style towards effective schools, it was found that there was a positive effect. Instructional leadership is a leadership style that can be applied to improve teacher performance. Instructional leadership is able to provide encouragement and direction to school members to improve the quality of learning. Instructional leadership is believed to be able to keep pace with globalization, modernization and even socio-economic and cultural currents [40] .

Instructional leadership is described as learning leadership that focuses or motivates both teachers' subordinates, staff and students to be able to improve teacher performance so that the learning process / learning outcomes improve and be able to achieve predetermined targets even able to achieve more than previously thought. In the field of education, in accordance with the renewal efforts undertaken, the form of leadership is also important to be formulated [58].

Several previous studies related to the findings of this study [59], [60], [61], [58], [62], [63], [64], [64], [63], [65]. The findings of this previous study reinforce that there is an influence on effective schools.

4.3 The Principal's Transformational and Instructional Leadership Style for Effective Schools

The author found that the principal's transformational and instructional leadership style towards schools was effective. The roles and functions of transformational and instructional principal leadership are as communicators, counselors, consultants, which are leadership behaviors that transfer cultural values so that the expected goals are achieved. This leadership has elements such as the leadership style itself, followers, and situations [66].

Principal transformational and instructional leadership towards effective schools include: the need for delegation of duties and communication of principals to teachers, the submission of teachers to the principal's authority, instructional leadership needs to design every school activity, leadership training needs to be done. Principal's leadership must be able to work with teachers and have a strong work ethic, so as to create an effective school and be able to improve the quality of education [19]. Based on several previous studies the principal's leadership influences the school effectively. A school principal must have principles in his leadership such as: being trustworthy, using the truth that exists, listening to all the voices of teachers, students, staff, parents, producing true vision, being able to empower himself and others, being able to

involve all members in decision making to improve school progress through effective schooling. The principals' competencies include: 1) personality 2) managerial 3) entrepreneurship 4) supervision 5) social. Principals must be able to change all the potential of school residents from latent to manifest, foster a sensitivity of coaching and organizational development, develop a vision jointly distributing leadership authority, building the organizational culture of the institution and restructuring the institution they lead.

The principal's ability to create a positive and conducive climate for students to learn, the implementation of strong leadership, the existence of clearly stated and specific school goals, the existence of partnerships between schools, parents and the community, the progress of students who are often monitored, high expectations for all school residents. The success of the school can be seen from the ability of the principal's leadership in leading the school. Without effective leadership skills, the principal will fail to develop a series of activities in the school. The principal's leadership ability is the key to change and improve school quality. Effective schools have components of the characteristics of school effectiveness including: 1) management 2) leadership 3) commitment 4) expectations 5) school climate and 6) the role of government.

Several previous studies related to the findings of this study [67], [68], [19], [19], [18], [69], [40], [70]. Previous research findings indicate a positive influence on effective schooling.

5 Conclusion

The authors conclude that the transformational leadership style and instructional principals have a positive effect on effective schools in various countries including Indonesia. This shows that the principal's transformational and instructional leadership style has an influence on effective schools. That is, the transformational and instructional leadership style of the principal has an important role in directing the school effectively.

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The Effect of Academic Supervision in Improving Teacher Performance: A Literature Review

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Abstract. Teachers play an important role in learning. As a professional teacher, supervision is needed to improve the implementation of the teaching process. The purpose of this literature review is to examine and Analyze the impact of academic supervision on improving teacher performance. The method in this study was carried out by reviewing related articles about academic supervision and teacher performance. The sample of this research is focused on the google schoolar search engine with academic coaching and teacher performance as the main research constraints and then identified. The results of the review articles, most of the role of academic supervision, are very influential in improving teacher performance even though there are still obstacles such as not yet participatory planning and implementation of academic supervision. Therefore, effective academic supervision requires the principal's willingness to plan, implement and evaluate participatory supervision.

Keywords: Academic supervision, teacher performance.

1 Introduction

Ability expressions that are based on knowledge, attitudes, skills, and motivation to produce something are defined as performance. Teacher performance is an achievement or performance carried out by teachers in carrying out their duties as educators, and the quality of educational outcomes is largely determined by the teacher, because the party who has the most direct contact with students in the learning process in school educational institutions and other educational institutions is the teacher. This is not only determined by one factor, but many things that have an influence in determining the improvement of the teacher's performance. Basically, the result of the result is performance, is the end point of people, bringing together certain resources and the environment, with the aim of appreciating certain things, such as the tangible product of less tangible service. To the extent that interactions produce the desired results and quality, at unreasonable cost levels performance is judged satisfactory, good, or excellent. Performance will be judged poor or difficult if the results are disappointing, for whatever reason.

In the learning process the teacher has a very important role. If the teacher works professionally is not impossible if a school can produce students who excel. Conversely, if human resources in this case the teachers in a school are not well managed, then the student output at the school will also be low [5]. This means that between human resources

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(teachers) and the quality of students in schools there is a positive correlation, where human resources need good management to reach quality students. In fact, one of the keys to the success of education quality in the country is teachers. Supervision and guidance are needed to improve the execution of the teaching process they do as professional teachers. A teacher who is considered capable of carrying out their duties with the conditions that they have fulfilled before they are appointed as teachers still needs supervision from various parties [3]. One of them is the principal who supervises. The duties and roles at school must be understood by a school principal. If the duties and roles of the principal can be understood by the principal, then it is easy for him to carry out all his duties, especially those related to the implementation of supervision.

Academic supervision is an activity in which teachers are assisted in developing the ability to manage learning so that effective and efficient learning objectives can be achieved [4]. It is hoped that teachers, as the pioneers of educational activities, will have a good performance in realizing high-quality character-based learning through supervision, so as to develop the potential of students into people who believe in and fear the almighty, noble, healthy, and knowledgeable God. Independent, capable, creative, and become a democratic and responsible citizen. Educational Supervision as an activity that is inseparable from the management activities of Education needs to be pursued simultaneously and improved the quality of its implementation. Education supervision has a strategic and important position in the management of education, it has become imperative for the government to strive continuously to make the implementers of education supervision a professional force [18].

Supervision has not been optimal. Supervision and observation objectives focus more on technical aspects and rarely involve administrative aspects directly related to the learning process [16]. Due to time constraints of supervisors, the principal supervisor did very little in frequency and intensity. Supervision of school principals in its implementation has not provided significant benefits for improving teacher professional skills. The principal should allow a larger portion of supervision to be directed at academic supervision to improve teacher professional abilities. A basic function (basic function) in the whole school plan is academic supervision, which shows that function is a source of information for teachers' professional development. The performer of academic supervision can be performed by the principal, to carry out management functions that aim to improve teacher professionalism.

Teacher performance can be seen through a performance appraisal which in principle is a way of measuring the contribution of individuals in the institution to the organization [30]. Academic supervision is one way of evaluating teacher performance through a systematic planning cycle, careful and careful observation. Through supervision it is expected that teachers will provide feedback with the improvement of the quality of performance. Academic supervision will have a positive impact on teachers professionally if it is carried out effectively [11]. The impact is visible from indicators such as: the invitation of teachers to be supervisors to supervise the class, increased teaching motivation, discussions between teachers began to take place, Improve teachers' innovative ability and creativity, and produce designs, artworks or intellectual property in the form of research, publications and students. which indicates an increasing trend achievement.

However, there are studies that draw conclusions about vocational high schools in Indonesia which show the results of the principal's academic supervision have a significant positive effect on the performance of teachers of the Private VHS Business Group and Management of Depok City, directly and indirectly through work motivation. This shows that improving teacher performance is not only improved work motivation. But the principal's academic supervision must also be improved [15].

Research has been carried out on principal leadership, academic supervision, and work motivation in improving teacher performance. The results obtained a significant positive correlation between academic supervision and teacher performance [10]. According to Ali Rifaldi in his research, the assessment of teacher performance in managing learning cannot be separated from academic supervision [8].

This makes it clear to us in understanding the influence system of academic supervision behavior. Directly, teacher behavior and teacher performance can be relied on by academic supervision. Through academic supervision, the teaching behavior of the supervisory teacher is better in the teaching process. Furthermore, good teacher teaching behavior will influence student behavior in learning. Writing this article aims to see the effect of supervision on teacher performance. Thus, the main research question for this research is "How should academic supervision be directed towards improving teacher performance?"

2 Literature Review

2.1 Supervision

Supervision is an effort given to teachers in performing professional tasks so that teachers can help students to learn better than before [32]. Supervision is an integral part of the functions of the school administrators [46],[38],[37]. Thus, supervision can also be interpreted as assistance in developing better learning or activities provided to help teachers carry out their work more optimally [41]. In this way, supervision has the function to direct, coordinate, develop, guide and regulate others in achieving the goals set in the school situation which leads to the understanding that supervision has a significant meaning to provide assistance and guidance [49].

Supervision is to improve classroom management strategies, adhering to curriculum content, shaping the direction and utilization of instructional activities and discipline for effective control measures [27],[28]. The aim of school supervision is to improve student learning but the direct focus is on teachers and the entire educational environment. [53],[25]. Supervision in education includes science, skills, personality, teacher welfare, staffing services, career paths, performance development, and professionalism, to bring teachers to an open, skillful attitude, their souls integrated with the task as an educator [22].

Effective supervision has characteriz, such as : (a). competency supervisor, (b). Academic supervision is planned to be prioritized in the supervision program, (c) more varied supervision techniques, (d) providing feedback according to teacher problems, (e) participatory supervision, (f) teacher support and commitment to self-improvement, (g) continuous coaching and mentoring, (h) increasing teacher competence in learning, (i) increasing student absorption and (j) continuous evaluation [16]. Supervision is an activity to help develop teacher skills and facilitate teachers in improving the learning process carried out by the principal [44]. Supervision is coaching that is planned in order to help teachers and other school staff do their work effectively [23].

From several meanings it can be understood that supervision is a series of efforts to compare the standards of a certain planned activity with implementation, as well as following up on these results. This means that supervision must be able to measure the results with the standard of certain activities.

2.2 Academic Supervision

Academic supervision is an activity to help develop the ability of teachers to manage the learning process to achieve goals. Academic supervision is related to the assessment of teacher performance in managing subsequent learning [16], [34], [29]. Supervision is a way of cultivating teacher professionals to develop democratic leadership and solve the problem of the learning process effectively [17], [21], [36]. Effective learning supervision is carried out to achieve these goals, namely effective learning in order to improve the quality of education from efforts to increase the cognitive value of student learning achievement in subjects at the high school level, the principal previously conducted a problem analysis followed by problem identification and clarification [52].

Not only head master as supervisor, but it requires the responsibility of academic supervision of the vice principal. The responsibility of academic supervision of the vice principals is to focus on the process of supervising teachers in teaching, how the teaching media is, how learning is carried out and providing solutions to the problems faced [2], [43], [40]. In this process, how do teachers manage time, use teaching materials and practices that are expected to improve student academic achievement. This is because a significant factor affecting children's education is the quality of the teacher [48].

Academic supervision must change teachers to become competent, that is, teachers increasingly master their competences, both personal, pedagogical, professional, and social competences [26]. Through academic supervision, the teacher is assisted by the principal in managing the learning process, and the teacher is helped to develop his professionalism, in this case the teacher's performance in preparing learning tools [24]. Therefore academic supervision should address the development of all teacher competencies [51]. Students as mentors also play an important role in supervision. The relationship between academic instructors and supervisors is complex and affected by a variety of dynamic dynamics [9]. Therefore, it is useful to know whether students receiving academic guidance have opinions on their expectations of academic relationships and the support they receive from the mentor. In addition, determining how the students' views differ or converge with the supervisor's views are important topics to consider.

From the above theory, it can be concluded that a series of activities to assist teachers in developing their abilities in managing the learning process in a professional manner to achieve the expected learning objectives. There are four competencies that must be developed through academic supervision, namely personality, pedagogical, professional, and social competencies.

2.3 Teacher Performance

The result of work is performance and progress that has been achieved by someone in their field of work. Performance is synonymous with work performance or in English is called performance. Performance is always a sign of the success of an organization and the people who are in the organization. Performance is the key that must function effectively so that the organization as a whole can succeed. Performance is only a result of achieving measurable goals. But performance is how they achieve it, not just what is achieved. Good performance results are the result of appropriate behavior, especially wisdom in behavior, and effective behavior in accordance with the skills and competencies needed [6], [47]. Good and effective teacher performance will shape the school's work culture, thereby improving the quality of

education and creating an effective school [42]. Furthermore Andriani, Kesumawati, and Kristiawan concluded that performance is the work of a person or organization by doing and producing Something, physical or non-physical according to instructions, functions and tasks based on knowledge, attitudes, skills, and motivation. Performance systems generally include behavior (what employees do) and results (results from employee behavior). The performance dimension does not include the results of the behavior, but the behavior itself [20], [35]. So performance is about behavior or what employees do, not what is produced or what results from their work. It describes two behavioral traits as evaluative and multimedia social performance.

Teacher performance is the result of teacher work in carrying out their duties based on abilities, skills, experience, abilities, according to their competence and job criteria [45]. The most common goal of classroom observation is teacher performance [39]. Lecturer or teacher performance is an important factor. The main assessor of teacher performance is students [5]. Teacher performance is the ability and success of the teacher to carry out learning. There is a significant effect of teacher performance on teacher teaching abilities [12], [31]. Teacher performance can be seen through several indicators 1) ability to compile lesson plans; 2) the ability to carry out learning; 3) the ability to do interpersonal relationships; 4) ability to assess learning outcomes; 5) ability to carry out enrichment programs; 6) ability to implement improvement programs [33].

Based on that teacher productivity in classes taught by performance teachers are more useful theoretical findings, because they come from any class too small to be of use. Efforts to improve teacher quality, whether through better recruitment and selection, increased in-service training, or efficient use of teachers all rely on the ability to check teacher performance on demand, quickly, economically, and accurately.

3 Method

This literature review focuses on the The influence of academic supervision on teacher performance. The review process begins with a search engine, google schooler, to search for articles with keywords. "The Effect of Academic Supervision in Improving Teacher Performance". The search was not limited and a total of studies and articles were identified. Thus, this literature review is built by gathering and filtering researches under these following conditions and search keys:

a. Supervision in Education :3.470.000 results
b. Academic Supervision: 198.000 results
c. Performance : 978.000 results
d. Teacher Performance : 379.000 results
e. Range of research year between 2014-2020

Thus, there are 23 papers found and suitable with this library research. The 23 papers are the most suitable because the papers are discussing about how the aspects of academic supervision can affect teachers' performance. The aspects are not only in the supervisor itself, but also in some other aspect like facilities and financial issues.

Table 1. Academic supervision in improving teacher performance.

Author and Year	Title	Country	Method	Sample	Resuslts
Andriani, Kesumawati, Kristiawan (2018)	The Influence Of The Transformational Leadership And Work Motivation On Teachers Performance	Indonesia	Quantitative	193 teachers	Transformational leadership has a significant effect on the performance of SMK teachers in Palembang. This means that the better the transformational leadership, the better the performance of vocational school teachers in Palembang
Arum (2017)	The Development of Elementary School Headmaster's Managerial Performance Assessment Model Based On Competence Standard	Indonesia	RnD	Managerial Performance Assessment Model	Principal management performance evaluation model tools need to be developed, so that the evaluation of principals can truly measure all measurement aspects, and the process of processing the results is very fast, so it is necessary to improve the principal management performance evaluation model
Ambarita, Siburian, Purba (2014)	Development of Academic Supervision Model which Based on Educational Management	Indonesia	RnD	30 teachers of Indonesian	The first stage of the art model of academic supervision has a good performance value for teachers. In cycle II, 86.67% of teachers had good performance scores, while 13.33% of teachers had good performance scores.
Ardiana (2017)	Pengaruh Motivasi Kerja Guru Terhadap Kinerja Guru Akuntansi SMK Di Kota Madiun	Indonesia	Quantitative	97 accounting teachers	80.6%, motivation has a significant effect on accounting teacher performance and 19.4% accounting teacher performance is determined by factors other than research.
Adewale 2014)	Instructional Improvement of Secondary School Teachers through Effective Academic	Nigeria	Qualitative	Teachers' improvement level will be evaluated in mastery	Internal academic supervision is undoubtedly the best choice to improve current quality and

	Supervision by the Vice-Principals			of subject matter, teaching skills, and use of teaching resources	maintain a higher standard, because it is easy to obtain, supervise with teachers, correct and consolidate the intimate relationship between thought and innovation.
Rifaldi & Roesminingsih (2014)	Pengaruh Supervisi Kepala Sekolah dan Motivasi Kerja Guru Terhadap Kepuasan Kerja Guru di SMK ADB INVEST Se-Kota Surabaya	Indonesia	Quantitative	95 teachers	There is an influence significant from the Principal's supervision of teachers' job satisfaction at SMK ADB INVEST throughout Surabaya City Significant influence of work motivation teacher to job satisfaction of teachers in vocational schools ADB INVEST throughout Surabaya City; Have a significant impact Supervision of School Principals and Work Motivation Teacher together against teacher job satisfaction at ADB INVEST Vocational School Surabaya City
Elliott (2015)	Teacher Performance Appraisal: More about Performance or Development?	Australia	Qualitative	Teacher performance appraisal	Evaluate the complexity of performance evaluation and its impact on teacher effectiveness, and acknowledge the need for further research in this area. Keep in mind that performance evaluation, teacher standards and professional learning are difficult to separate.
Hardono, Haryono, Yusuf (2017)	Kepemimpinan Kepala Sekolah, Supervisi Akademik, dan Motivasi Kerja dalam	Indonesia	Quantitative	123 teachers	Principal leadership and Academic supervision has an effect on good work motivation partially or simultaneously

	Meningkatkan Kinerja Guru				
Astuti (2017)	Supervisi Akademik Untuk Menigkatkan Kompetensi Guru di SD Laboratorium UKSW	Indonesia	School Action Research	15 teachers	Academic supervision can improve the ability of teachers in particular ability to arrange appraisal administration. In order to improve teacher's ability is needed guidance and direction from the principal as a teacher supervisor.
Dee & Wyckoff (2015)	Incentives, Selection, and Teacher Performance: Evidence from IMPACT	United States	Descriptive Quantitative	Approximately 2,630 teachers	There is a relatively strong consensus regarding the following points of view: teachers will have a significant and long-term impact on students' educational and economic results, and under the current basically static teacher evaluation and compensation system, the quality of teachers is very different .
Naggar, Sarory, Naggar, Al-Muosli	Doctorate international students' satisfaction and stress on academic supervision in a Malaysian University: a qualitative approach	Malaysia	Qualitative	9 PhD students	Most international PhD students mentioned that the supervision system makes them feel worried and stressed.
Gatrix & Barrett (2016)	Desperately seeking consistency: Student nurses' experiences and expectations of academic supervision	United Kingdom	Qualitative	8 students	It is important that students do not be afraid to contact their superiors, because if the relationship between superiors and students is more positive, they are more likely to put more energy into their work and get support again in future modules
Guarino, Maxfield, Reckase, Thompson, Wooldridge (2015)	An Evaluation of Empirical Bayes's Estimation of Value-Added Teacher Performance Measures	United States	Quantitative	Empirical Bayes's Estimation	If the allocation mechanism is known to be random, it may be appropriate to apply these AR and EB estimates, especially

					when the amount of data per teacher is minimal.
Suarda, Yadnyawati, Suda (2018)	Portrait of Hindu Religious Teacher Performance Certified Educator in Junior High Schools Denpasar	Indonesia	Qualitative	Hindu Religious Teacher's performance	The performance of Hindu religious teachers who have pocketed an educator certificate at SMP Denpasar is not yet good. This is due to several reasons, including human resources, infrastructure, leadership systems and supervisory systems
Rahabav (2016)	The Effectiveness of Academic Supervision for Teachers	Indonesia	Qualitative	1 Principal 9 Regular teachers	The academic supervision performed by the principal is invalid for the following reasons. First of all, from the supervisor; 1) Time constraints (many management tasks must be completed); 2) Participatory programming has not yet been carried out; (3) Insufficient understanding of the supervisor's concept of supervision, theory and practice; 4) Every teacher will teach Lack of understanding of scientific supervisors related to the research field
Waang, Matin, Ahmad (2019)	Pengaruh Efektivitas Manajerial Kepala Sekolah dan Etos Kerja Terhadap Kinerja Guru Sekolah Dasar di Kecamatan Teluk Mutiara Kabupaten Alor	Indonesia	Quantitative	146 teachers	Effectiveness of managerial affect headmasters directly positive for teacher performance. Which means the better the level of managerial effectiveness of the principal, The performance of elementary school teachers in Teluk Mutiara Subdistrict, Alor Regency is getting better.
Mackinnon (2004)	Academic Supervision: seeking	New Zealand	Qualitative	Metaphors and models	These conclusions about best practices are partial

	metaphors and models for quality			for quality in Academic Supervision	because they are proven correct by past experience, my experience, and other experiences. More resources are needed to help supervisors provide high-quality quality supervision in complex relationships that are difficult to predict future problems
Khoeriyah (2015)	Effect On The Performance Of Supervision Academic Teacher In SMP IT Yaspida Sukabumi	Indonesia	Descriptive Quantitative	3 teachers	Principal's academic supervision of performance of YASPIDA IT Middle School teachers Sukabumi is quite good with results by doing f test and t-test
Medley & Coker (2015)	The Accuracy of Principals' Judgments of Teacher Performance	United States	Quantitative	322 teachers	The principal's average judgment on the performance of the teachers he or she supervises is still not accurate enough
Prasetyono, Abdillah, Fitria (2018)	Academic Supervision toward Teacher's Performance through Motivation as Intervening Variable	Indonesia	Quantitative	80 teachers	Directly and indirectly through work motivation, the principal's academic supervision has a significant positive effect on the performance of the Business Group and Management of VHS Public Private Group teachers in Depok City.
Podgursky & Springer (2007)	Teacher Performance Pay: A Review	United States	Descriptive Quantitative	Teachers' payment	Education policy makers need to be careful when designing such plans and must expect to continuously improve these plans while understanding behavioral responses
Muralidharan & Sundararaman (2009)	Teacher Performance Pay: Experimental Evidence From India	India	Quantitative	300 schools	Teacher's performance pay is an idea with strong supporters and opponents. So far, the empirical evidence on its performance is uneven

Hansen, Thomsen, Nordentoft (2014)	Challenges in Collective Academic Supervision: supervisors' experiences from a Master Programme in Guidance and Counsellin	Denmark	Qualitative	5 supervisors 19 students	The monitoring methods used, the expectations and experiences of the supervisors all have an impact on the students' behavior

4 Result and discussion

Based on the results of literature reviews and the comments obtained from the comments obtained, the analysis shows that most articles focus on the impact of academic supervision on improving teacher performance. It can be seen from the review articles that most academic supervision has a great influence on improving teacher performance.

There are many factors that hinder the effectiveness of academic supervision of the principal, including: first, the supervisor: 1) must complete a lot of administrative work; 2) not planning and implementing academic supervision in a participatory manner; 3) the concept, theory and practice of supervision by supervisors Lack of understanding; 4) Lack of understanding of the essence of scientific principles related to the research field taught by each teacher. 2. Teachers: 1) Low commitment to quality; 2) Motivation of teachers to specialize in pursuing prosperity. Based on this, to facilitate academic supervision, what is needed is the principal's plan, the willingness to carry out and evaluate participatory academic supervision. [16].

Whereas, not only the supervisor him or herself become the main issue that affects teachers' performance. Teacher's performance pay is an idea with strong supporters and opponents. So far, the empirical evidence on its performance is uneven [13]. That means, financial issues and facilities are also taking an important role in affecting teachers' performance. Education policy makers need to be cautious when designing such procedures and must expect them to continuously improve the procedures as they understand behavioral responses. The programs mentioned above are closely related to financial topics which are becoming one of issues that affect teachers' performance [14].

5 Conclusion

Based on the analysis of the above papers and research. It can be concluded that academic supervision is obviously an important aspect of improving teacher performance. The effectiveness of managerial affect headmasters directly positive for teacher performance [20]. Which means the better the level of managerial effectiveness of the principal, the better the performance of Elementary school teachers in Teluk Mutiara District, Alor Regency. Academic supervision can improve teachers' abilities in particular ability to arrange appraisal

administration. In order to improve teacher's ability is needed guidance and direction from the principal as a teacher supervisor [7]. Although other factor like financial issue is still another problem due to education world has become such a beneficial business.

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The Influence of Headmaster‘s L leadership of instruction Style and Educator’s Performance on Students’ Academic Achievements

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Abstract. The effect of the headmaster’s l leadership of instruction and teachers’ performance in improving students’ academic achievements have become a hot issue that is widely discussed. Many pieces of research have been revealed that principal’s l leadership of instruction style and teacher’s performance has a strong effect on students’ academic achievements at school. This article clearly discusses various research results regarding the effect of l leadership of instruction and teachers’ performance on learners’ academic attainments. The articles used as documents in this study are articles from various countries by researchers around the world. Some conditions are enforced as guarantors for the credibility of articles, such as articles from reputable international journals and articles from quantitative research. This article is a literature review that aims to check out the influence of the headmaster’s l leadership of instruction and teachers’ performance on improving students’ educational achievements globally. Based on the results of the literature review, it was revealed that in 2003-2019, studies on empirical l leadership of instruction became rapidly implemented and developed in Asia, Africa, and Latin America. These studies show that teachers’ teaching performance and students’ academic achievements can be increased by improving the principal’s l leadership of instruction performance.

Keywords: Principal‘s l leadership of instruction style, student’s academic achievements, teacher performance.

1 Introduction

The rapid development of the education system is the reason why policymakers increasingly focus on academic achievement as an indicator of student academic success. Research results from more than a decade show that, when college, home, and communities perform with each other as partners to bear students, they will find it is very easy to achieve learning achievement. Being partners the students are well motivated and have self-awareness on their learning progress. Partnerships between schools and families that create a safe school environment can strengthen childcare ability, enhance educational ability, and help students get other aims that merit learners of all classes. Thus, schools and families should be able to build communication in getting the best students’ achievement.

A policy maker must focus on academic achievement and student academic success and ensure that the policy benefits students in the quality of education. The need to increase academic achievement has led researchers to hypothesize that parental involvement in children's education constructive ly influences children’s development, especially in the area

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of academic achievement. The students' academic achievement is the indicator of the students successive on teaching and learning process.

Several studies have proven that there is a strong beneficial connection between educators' performance and student's progress. As revealed in his research, teachers are one of the dominant factors in schools in influencing student achievement in all branches of science education. Other research also revealed that in Shanghai (China) the very high effectiveness of teachers became the dominance of workplace norms that supported professional learning [1]. So, both students and teachers should have a constructive synergistic in order to achieve successful learning progress.

Promotional opportunities, professional autonomy and interaction with students and colleagues constructive ly influence their job satisfaction. Teacher effectiveness refers to their satisfaction with their work and their willingness to carry out work in accordance with school goals. In general, job satisfaction is a feeling of satisfaction and happiness that individuals have when fulfilling tasks [2]. Schools throughout the world face challenges in maintaining effective teachers. For good quality of school leadership, both of keeping experience and teachers‘ competent are important for improvimg it. Therefore, this study examines innovative models that explore direct and indirect relationships between principal's l leadership of instruction, teachers' performance, shared vision, and teachers' intentions to leave their schools [2].

School principles every time bear cooperation with expert growth, observe learner's improvement, and supply incentives for studying [3]. The significance of educators' cooperation as the powerful good aspects in schools shows that official and inofficial teacher expert studying can be improved by growing and maintaining the chances needed for teachers in the organization [4].

The task of instructional leaders is to improve the development of organizational mechanisms that focus on teaching and learning that can produce better results for students [5], l leadership of instruction as an action that is directly related to teaching and learning, such as in observing the class [6].

The principal is a leader who has the main task of improving school and student outcomes. Besides, they are the second person in school (after teacher) who has an impact on academic students [7]. The l leadership of instruction style is a style that provides support, to some extent, for teachers to work together to improve teaching [8]. Empirical l leadership of instruction studies have recently emerged from communities in developing countries in Asia, Africa and Latin America [1]. Thus, the principal has the core role in developing the educational management for supporting the teachers.

The L leadership of instruction Style has a important effect on 5 components of professional learning, 4 of which are cooperative activities, a simultaneous center on learners study, de-privatization practices, and reflective dialogue, which are predicted to constructive ly impact teacher's self-efficacy. The examination shows that cooperative activities, de-privatization practices, and contemplative chat are important to teacher's efficacy. In addition, the influence of l leadership of instruction is also strong on the educator's self-efficacy [9].

The L leadership of instruction Style is practiced by leaders, especially school leaders (principals). Previous research used the concept of l leadership of instruction as a basis for changes in school education, school improvement, and effective school [4]. The l leadership of instruction style is the practice of school leaders (principals) to distribute power among educators to increase the grade of the educational process. The l leadership of instruction style is a set of leader behaviors that supports the teaching and learning process. Besides, leaders with l leadership of instruction styles must also be aware that improving the quality of learning

also involves the entire school community. Instructional leaders have more responsibility to convey school goals, manage to teach, develop school climate, and monitor students' outcomes [10].

The documents show that l leadership of instruction does not merely turn the headmaster into a model educator; yet in creating the organizational conditions, the pedagogical capability, extend chances for renewal, provide and allot assets, provide teaching aim and bear to educator, and authorize educators to be responsible personally or together to increase their teaching quality is needed to build [11]. For the goal of this research, the researchers center on l leadership of instruction and explain that National Leadership instruction focuses on three aspects: explain the school of mission (frame and communicate school aims); managing teaching programs (govern and assessing instructions, coordinating curriculum, and monitoring learner advancement); and create a constructive school environment [12].

Decision-making by instructional leaders often described as a center on improving the educational process, teachers will be more involved in collaborative interactions that target the improvement of group goals. Instructional leaders improve and develop organizational mechanisms that focus on teaching that can lead to better outcomes for students [1].

However, most of the existing articles focus on the Effect of the Headmaster's L leadership of instruction Style and Teachers' Performance on Students' Academic Achievements, so this article will focus on this limitation. The focus of this literature review is to discuss the Influence of the Headmaster's L leadership of instruction Style and Teachers' Performance on Students' Educational Achievements, especially in countries in Asia. The main focus on students' academic achievement for getting the best mapping on the students' academic achievement in Asia.

2 Literature Review

2.1 L leadership of instruction style

L leadership of instruction is a model of guidance that supports the learning process and facilitates learning in school. The instrument used to study l leadership of instruction is the Instructional Instructor Management Ranking Scale [13], [14].

In this article, we analyze the transformational effects and l leadership of instruction style of the secondary school principals, focus on flight majors, and the effects on organizational attractiveness [15]. There are differences in l leadership of instruction aspects, as well as explaining school missions, administering teaching programs, and making a constructive atmosphere for the educational process [16].

L leadership of instruction owns a good influence on students' learning achievements. Headmasters who are accepting, concerned, kind, and have good hopes but do not overburden educators with administrative assignments, can improve teachers' performance [17].

Principals as leaders are hoped to give ideal direction for educators and for all staff. Specifically, junior high school educators need direction from the headmaster as a certain path to create the desired results of well-educated high school graduates. Because each head slant to own a different typical pattern or individual manner in leadership, it seems logical to suppose that the leadership style may be connected to the grade of the organization. The goal of this study was to explore the effect of the principal's leadership style and educator's achievement on student academic attainment[18].

3 Method

This literature review focuses on the effect of participal's l leadership of instruction styles and teachers' performance on students' academic achievements. The review process begins with searching articles in the google scholar search engine, with the keywords "l leadership of instruction styles for principals and students' achievements and teachers performance and students' achievements. Search articles were found with the following research criteria:

1. The research approach used is quantitative.
2. The research was done in Asia.
3. Research articles must be written in English.

The steps used inn the literature review

Step 1: Define the prolem

- Select the appropriate topic
- The problem muct be written completely and accurately

Step 2: Find literature

- Find literature that is relevant to research
- Get an overview of research topics
- Research sources will be very helpful if supported by researchers' initial knowledge of the topic.
- Thuis literature must provide an overview/ summary of previous research.

Step 3: Evaluate the data

- Focus on research contributions to the literature (novelty related topics discussed).
- Find the right data source, according to the needs to support the research.
- Data can be in quantitative data, qualitative data or mix method.

Step 4: Analysis and interpretation

Discuss and find summarize the literatures the authors found.

Table 1. The effect of l leadership of instruction style of pricipal and teachers' performance on students' academic achievements.

Authors	Title	Country	Methods	Sample	Findings
Amal Alsaleh (2019)	Investigating L leadership of instruction in Kuwait's Educational Reform Context: School Leaders' Perspectives.	Kuwait	Using analysis content qualitative open-ending interview	28 schools	There are many differences in l leadership of instruction aspects, as well as explaining school missions, administering educating programs, and making a constructive atmosphere for the educational process. A step by step, organized decentralization is suggested to increase the practice of educational leadership in Kuwait.

Juliana Baharuddin (2019)	Demografic Factors Assosiated with L leadership of instruction Practised by Secondary School Principals.	Kelantan, Malaysia	Survey cross-sectional study using the methods of quantitative	271 principals	The discovery of this research will be analyzed and interpreted to describe the level of the headmaster's l leadership of instruction practices based on the sex, age, and experience of the principal. The Level Practice of L leadership of instruction by Gender on of Principals between men and women is almost similar; both are at a high level.
Juliana Baharuddin Norhana Mohammad Saad Siti Noor binti Ismail (2016)	Management of Crisis in Schools and Its Correlation with Commitments of Middle School Teachers in Kelantan.	Kelantan, Malaysia	Survey cross-sectional study using the methods of quantitative	271 principals	The findings of this study will be analyzed and interpreted to describe the level of the headmaster's leadership of instructional practices based on the sex, age, and experience of the principal. Level Practice of L leadership of instruction by Gender on of Principals between men and women is almost the same, both are at high level
Jared Boyce, Alex J. Bowers, (2018)	Toward an evolving conceptualization of l leadership of instruction as leadership for learning: Meta-narrative review of 109 quantitative studies across 25 years.	United States	The Quantitative School and Employment Survey (SASS) is managed by the US National Center for Education Statistics. Meta-narrative review method	109 studies Education National US.	There are four main themes of l leadership of instruction research that analyze SASS data: leadership and influence of the principals, autonomy and influence of teachers, the growth of the adult, and the climate of the school. It was the three factors that most lots examined in relation to the theme of l leadership of instruction: teachers' satisfaction, teachers' commitment, and retention of teachers. The study revealed detailed findings of principal in each theme, illustrates the theme of the relationship between the seven factors, and integrating relation to the single models.

Ramazan Cansoy1 (2019)	The Correlation between School Principals' Leadership Behaviours and Teachers' Job Satisfaction: A Systematic Review.	Turkey	Information-based comprehensive research		The remaining ten studies were conducted between 2001 and 2013. Four studies in Turkey carried out after 2014. So, can be said that the correlation between leadership behavior and job satisfaction increases after 2014.
Frednardo Davis ' Mary K. Boudreaux (2019)	Charter School Principals' L leadership of instruction Practices.	-	Quantitative	-	The present document shows that l leadership of instruction does not turn principals into model educators; even so, it has to have the capability to make the organizational situation needed to make educational skill, expand chances for innovation, provide and allocate assets, supply support to teachers, and enable teachers to think personal and together responsibility for teaching betterment
MarytzaGawlik(2018)	L leadership of instruction and The Charter School Principal.	-	Qualitative	-	This study is focused on l leadership of instruction as it explains that the l leadership of instruction emphasizes 3 aspects: explaining task of schools; administering programs instruction, and create a constructive climate of the school
Philip Hallinger (2003)	Leading educational change: Reflections on the practice of instructional and transformational leadership.	Kelantan, Malaysia	Quantitative	375 teachers from secondary schools in Kelantan	Since the 1980's, research about the style of leadership of instructional that practiced by leaders has been extensively done, especially by school leaders. Previous researchers have used the concept of l leadership of instruction as the basis for changes in education and improvement of school achievements.
Philip	Do beliefs	Iran	This	111 school	The findings of this study

Hallinger et al.(2018)	make a difference? Exploring how principal's self-efficacy and l leadership of instruction impact teachers' efficacy and commitment in Iran.		study uses a cross-sectiona l survey design	principals and 345 teachers	were more extensive on the leadership of the school and also finding support in studies about the practice of l leadership of instruction. For example, the research did in Bhutan (Pelzang, 2014) and Malaysia (Ponnusamy, 2010; Rosdi, 2012) got a good connection between international leadership and teachers' loyalty. Different studies have concentrated on comprehension of the influence of CTE on educator loyalty and job contentment.
Sabah Hejres, Ashley Braganza, TillaiAldab i (2017)	Investigating the Effectiveness of Leadership Styles on L leadership of instruction and Teachers Job Expectancy in Kingdom of Bahrain.	Bahrain	Qualitati ve methods using intervie ws	536 teacher subjects	There is an important relation between l leadership of instruction and the 4 styles of leadership. Work expectations are influenced by the idea of Transactional Leadership. Distributive leadership provides key administrative deeds of decisions. The style of supportive leadership of that the very common in the leadership of instructional and men are less interested in the application of the style of leadership in the Kingdom of Bahrain. All presumptions were answered and the null hypothesis was declined.
Kenneth Leithwood, Jingping Sun, (2018)	Academic culture: a promising mediator of school leaders' influence on student learning.	Toronto, Canada	Quantita tive explorat ion of new construc ts that are labeled as academi c culture.	856 elementary school teachers from 70 schools to online	The evidence confirms three research presumptions: 1) AP, DC, and teaching time form a general latent construction, AC; 2) AC explains the important portion of variants in SA, managing for SES students; and third, AC is an important mediator of SL effect on SA. The concept and the size of optimism academic (AO) and air conditioning

					than the paper and the effect for practice and research period before described.
Shengnan Liu and Philip Hallinger (2018)	Principals' l leadership of instruction, teachers' self-efficacy, and teachers' professional learning in China: testing a mediated-effects model.	Shanghai, China	Cross-sectiona l survey design	3,414 teachers and 186 heads of schools in 186 school secondary in Qingdao, China	The leadership of instruction of principals is straight and importantly connected to the Self-Efficacy of Teachers (β = 0.400, p <0.001) and the Expertise of Educators (β = 0.419, p <0.001). Teacher success is as well as straightly and importantly connected to Teacher Professional Learning (β = 0.449, p <0.001). This test confirms that the Principal's l leadership of instruction showed important effect immediately (i.e., through the Self-Efficacy) at the Learning Professional Master. Notably, this effect important in statistical measure (β) is in the range of moderate, so that shows the model stronger. Bootstrapping is used to check out more about the role of Teachers' Self Efficacy as a mediator of the effect of the L leadership of instruction of Principals on Teachers' Education Professionals (Preacher & Hayes, 2008). More specifically, the analysis of bootstrap confirms return both directly and peak-effect directly on the headmaster's l leadership of instruction and teachers' professionally.
David F.S. Ng (2004)	Computer simulations: a new learning environment for professional development of educational leaders.	Singapura	Basics of qualitati ve research : Techniq ues and procedu	-	Understanding which is great about beliefs heads of school and practice leadership instructional provided when readers ' follow ' the head of the school as she was implementing many aspects of leadership instructional

			res to develop grounded theory (2nd Ed.), Thousand Oaks, CA: Sage Publications.		in interaction and meeting with workers of the school, students and the elderly
Eunice OgobiriNumai(2018)	Principals' Leadership Styles and Academic Achievement of Students in External Examinations in Bayelsa State, Nigeria.	Nigeria	Quantitative	-	headmasters as leaders are hoped to give leadership for educators and for all different classes of the school staff. Specifically, junior high educators need guidance by the headmaster as the most certain path to make the desired students of well-educated high graduates. Because each principal inclined to own a attributes pattern or individual way that is typical of guidance, it seems logical to opine that the guidance way may be connected to the standard of institutional result. The goal of the current research is to explore the probable connection between the principal's guidance style and student educational attainment
MowafaqQadach, Chen Schechter and Rima'aDa'as (2019)	L leadership of instruction and Teacher's Intent to Leave: The Mediating Role of Collective Teacher Efficacy and Shared Vision.	Israel	Quantitative	1700 teachers from 130 Jewish and Arabic in elementary schools	Arab and Jewish educators in Israeli schools. The Arab people are distinguished by collectivity and high-power interval, whereas the Jewish front is distinguished by personals and low-power interval (Da'as, 2017). The output, at the level of the group, there was a important and constructive correlation between the leadership of instruction and the participation of the group in vision ($p < .001$).

					This correlation shows primeval initial support for H1 and H2. Further, there is a relationship, at the grade of the individual, between teachers in teaching and intention to leave.
Seçil Bal Taştan et al.(2018)	The impacts of teacher's efficacy and motivation on student's academic achievement in science education among secondary and high school students.	Indonesia, Iran and Rusia	This study uses a cross-sectional questionnaire survey design.	790 students	Results reported that there are a constructive and important impact of the perception of the self-efficacy of teacher and motivation to learn of students on students' academic achievements. Besides, each dimension of teacher's self- efficacy has an important and constructive impact on academic achievement.
Timothy Edward Taylor(2018)	Student Perceptions of Their Principal Preparation. The University of North Carolina at Charlotte,	Carolina	Causal comparative research, descriptive statistics	49 graduate students	The results of one-way analysis of variance showed nine successes item has a important difference with the size of the effect. Of the nine items, six are associated with factors of success on primary school and three associated with the quality of program leadership that is effective.
Murni Mohamad Yasin et al. (2017)	The Mediating effect of School Culture in the correlation between leadership of instruction and School Academic Achievement.	Malaysia.	Quantitative with questionnaire survey	16 secondary schools in the southern zone of Malaysia	The result provides big help for the design. The output shows that there are important and constructive effects of guidance learning on educational culture. The findings indicate there is an important and constructive effect of school culture on school academic achievement. Although the principal's l leadership of instruction is not linked directly to the school's educational attainment, it does own a constructive effect.

Xin Zheng, Hongbiao Yin and Zhanglin Li(2019)	Exploring The Correlation Among L leadership of instruction, Professional Learning Communities and Teacher Self-Efficacy in China.	China	Quantitative research with descriptive correlational design	1082 elementary school teachers	The output indicated that the l leadership of instruction has an important effect on the 5 expert learning aspects, four of them are: the activity of the collaborative, focus on the learning of students, the practice of de- privatization, dialogue reflective, and predicted a constructive self-efficacy of teachers. The analysis showed that the activities of the collaborative, the practice of de- privatization, and dialogue reflective is importantly mediate the influence of the leadership of instruction on the teachers' self-efficacy. Implications for educational leadership and educators' studying are examined.

4 Discussion

Based on findings from various literatures that researchers have collected from many international journals, researchers conducted a qualitative analysis to those studies. In order to analyse the data on article about the effect of l leadership of instruction style of principal and teachers' performance easily, the researchers put all the results in the table that consist of; authors, title, country, methods, sample and finding. The analysis shows that most of the main articles focus on how the principal's leadership style and how the teachers' performance can improve students' abilities in the academic field. There are various ways of collecting data related to the principal's leadership style and teacher performance in improving students' academic achievements. The most commonly used method is survey research with a quantitative approach. Survey research is research that explains the relationship and test hypotheses. Data collection using a questionnaire. While the data analysis technique used to test the hypothesis is a simple linear task analysis and multiple correlation techniques. The data processed is data obtained from the results of research, interviews and observations.

Research on the headmaster's' leadership of instruction style and teachers' performance in the world has been studied in various countries. Table 1 shows that research has been carried out in schools, including universities (higher education). The average results of the studies indicate that the principal's l leadership of instruction style in carrying out his role as a leader has an impact on teachers' performance and students' academic achievements. The results of research on elite leadership style and teachers' performance show that l leadership of instruction style and teachers' performance has a big impact to improve students' abilities in the academic field. Those results prove the theories that the principal's leadership style and teachers' performance have important correlation. This relevant with previous study is

important to stakeholders in education in helping headmaster's to implement leadership styles that will increase learners' educational achievement in junior high school [19].

5 Conclusion

Based on the discussion and analysis, researchers make general conclusion about the importance of l leadership of instruction styles and teachers' performance, and their effects on students' academic achievements. Research results from various countries show that the principal's leadership of instruction style and teachers' performance are very important for an organization, including educational institutions, and have constructive and negative impacts on academic achievement.

Such as any research in general, this review has limitations. The articles to be reviewed are only articles written in English, so, other studies are not reviewed due to language limitations. Second, dissertations and theses are not discussed in this article, because they can cause publication bias in the results. Three, the scope of the article whose review is still very limited, in Indonesia the article is only a cover in the leadership of instruction style. It was revealed that in 2003-2019 in the Research of Empirical Leadership of instruction, recently began to emerge from developing country communities in Africa, Latin America, Africa Latin America, and Asia.

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The Principal's Leadership in Shaping the Character of Indonesia's Golden Generation: A Literature Review

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Abstract. Character education takes an important part in preparing for Indonesia's golden generation. To realize a good character education, school needs an effective leader who is able to prepare a golden generation to help Indonesia to be a better nation and be ready to compete in global competition. The importance of the principal's leadership to design the character golden generation of Indonesia is very interesting to study, and this article aims to review how the principal's leadership in shaping the character of Indonesia's golden generation. There are a number of articles found about the principal's leadership review and their effect on the character of Indonesia's golden generation that was made not only by researchers in Indonesia but also written by foreign researchers. The purpose of this literature review is to find out the role of the principal's leadership in shaping the character of the golden generation of Indonesia. Based on the results of literature reviews from various countries in the world, we found the scope of the article was still limited, so, we wanted to know more deeply and was interested in following up on the discussion about the role of the principal's leadership in shaping the character of Indonesia's golden generation towards demographic bonus 2045.

Keywords: Character Education, Golden Generation, Principal's leadership

1 Introduction

Character education is one of the fundamental efforts in creating learning situations that are suitable for students' self-development and is designed to shape students' character. As an educational institution, the school has an important role to design the character of students. Because it is expected that through character education, students are expected to be closer to God, have strong faith, so they become virtuous, tolerant, have a motivation to fight for life, hard-working and discipline [1]. Build the skills and character are important efforts in preparing Indonesian youth to face global economic competition [2].

Besides, with character education, the identity of students will be well-formed, so that the nation's generation will have a good character. In shaping quality characters, coaching is needed from an early age. Tilaar stated that the term 'character' is the essential features of a person or a group or nation that is very prominent so that it can be recognized in various situations or is a trademark of someone. So, through character education, Indonesia's future

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generation will have intelligence in cognitive, affective, and psychomotor. This will strengthen the foundation of nationality towards a better nation [3].

In this context, there are two main roles of school, those are educating students with a variety of subjects, cognitive skills and knowledge, and educating students in individual and social development. Therefore, the school has a major role in character education as the social capital of students in their lives [4]. If the young generation of this nation is not educated with good character, then the nation's character -over time- will be destroyed, as stated by Thomas Lickona in Agus Wibowo's book entitled Character Education: Strategies to build the Character of Civilized Nations, he stated that: a nation is going to ruin when its character is pawned [5].

The principal is the person who has the highest authority in the school, because the principal is responsible for all school activities and plays an important role to improve the quality of education [6], [7]. Bush said that the Leader is the person who sets goals, provides innovations, and takes actions to his employees [8]. Principal's leadership is one of the factors that influence the quality of the school [9]. The principal's leadership is very important for the success of the school organization. Leaders can create positive changes in education by encouraging staff to take initiatives and change for effective and efficient school management [10], [11].

Principal's leadership influences students' potential in a variety of ways, through instructional and non-instructional assignments. The level and way of the leadership of a school principal influence student learning outcomes, but still depends on all aspects in the school environment, such as the principal, teachers, students, and the community [12].

The role of the principal is very important in transforming the educational process, performance, and student learning outcomes. Because the quality of school leaders is related to the student‘s result; therefore, schools must invest in training and upgrading the principal's leadership [13]. As a person who has the highest authority and rights in the school, the principal has seven tasks, those are: as an educator, as a manager, as an administrator, as a supervisor, as a leader, as an innovator, and as a motivator [14]. In short, Principals play a key role in this domain by design the school environment, motivating, and supporting learning in school [15].

The proper principal's leadership in shaping the character of the golden generation is very important. A demographic bonus must be welcomed. Demographic bonus is a situation where the number of productive age population is higher than the number of non-productive age population. It can be said that the principal's leadership has a large impact in shaping the golden generation character. The development of skills and character is one of the important efforts in preparing Indonesian youth to support the achievement of demographic bonuses and to face global economic competition [2]. Based on the description above, the authors feels the need to know more deeply about "What is the Role of the Principal's Leadership in Shaping Indonesia's Golden Generation Character?"

2 Literature Review

2.1 Principal‘s Leadership

Leadership according to Heifetz is a social activity [16]. The principal is the person who has the highest authority in the school, because the principal is responsible for all school

activities and plays an important role in improving education's quality and support the academic success of students, especially the students who are marginalized because of race, ethnicity, language, ability, socioeconomic status, gender, and religion [17], [6], [7].

The principal has an important role in influencing; encourage; guide; directs; and mobilizing teachers, staff, students, parents, and other stakeholders to achieve the goals set. [18] . A significant effect of school leadership on all scholl elements, positively influences the quality of teaching and learning. The function of leadership is to design organizational conditions that foster high quality in teaching and produce improvements in learning outcomes [19].

Principal's leadership is crucial for the success of school organizations because leaders create positive changes in education by encouraging staff to take initiatives in changing towards progress [10]. The leadership of the principal influence students' potential in various ways, through both instructional and non-instructional tasks. The level and way of the leadership of the principal could influence student learning outcomes but still depends on all elements in the school, such as school principals, teachers, students, and the community [12]. The role of the principal is very important in transforming the educational process, performance, and student learning outcomes because the quality of school leaders is related to the academic success of students; therefore, a school must invest in training to upgrade the principal's leadership [13], [20]. In short, the principal plays a key role in this domain by shaping the school environment, motivating, and supporting in school [15]. Three types of principal leaders' profiles were identified: "principals who think about people", "principals who think administratively:" and "principals who think moderately" [21].

2.2 Indonesia's Golden Generation Character

The Golden Generation is the generation of Indonesian who are often described as superiors, choices, creative and have high integrity and exceptional intellectual space. Changes in the generation of dynamic pioneers towards the good to shape the life and culture of a better nation. Various concepts and programs for the formation of the Golden Generation must be born, even forming the grand design of the formation of the Indonesian Golden Generation in Indonesia. The development of Indonesia's young generation must be balanced between aspects of knowledge (cognitive), character (affective), and skills (psychomotor) [22]. Every human being has the potential to display a good character that is suitable for him the nature of human creation since he was born. However, there must be a long process of developing good character through care, education, and social activities. Family, School, and Community play a very important role in forming, developing, and educating good human characters [23].

Education is a process of cultural reciprocity between individuals and communities. One of the important roles of education is filtering foreign cultures in society and maintaining local culture. Besides, education also plays a role in developing academic skills, shaping character, and positive behavior. To be successful, character education requires the right method so that teachers must be able to integrate character education into everyday life. Besides, teachers must use appropriate learning methods so that students can easily understand them. In addition to integrated learning, character education can also be integrated through cross-curricular, co-curricular, and extracurricular activities. Character education can be implemented with school programs and activities [24].

Character is an integral part that must be built properly. So that the young generation as the hope of the nation who is responsible for determining the future, students must have the

attitude and intelligence of strong and correct morality to build the nation [25]. Character education is not just about teaching right or wrong, but more than that besides this habit of internalizing (habituation) about which is good. Students will then know and understand good values or things that are true (cognitive), can feel values and norms (affective), and able to perform good behavior (psychomotor). Character education involves moral knowledge, moral feelings, and moral actions. So, character means values and norms that are related to national values and norms that are based on the Pancasila National Philosophy [23].

Character education in Indonesia is to develop and to familiarize the moral values and norms of Pancasila in our daily lives to have a peaceful and good life. The purpose of character education is to develop the character of the nation in Indonesia ordering that Indonesian people can carry out the values of Pancasila. The character of the educational function as (1) develops the basic potential of people to be kind, to have good thoughts, and to do good behavior; (2) strengthening and developing multicultural behavior, and to improve the cultural life of the nation which is competitive in Indonesia's world living relationships [23].

Characteristics of education are human activities in which educative and didactic actions are made for a growing generation. Ideally, education characteristics would be better implemented early. So, during the implementation of certain values, students will get educative actions. Through the education of school characteristics, this can encourage students to do, so with noble character values, such as respecting and caring for others, responsibilities, discipline, and many more values that need to be implemented [26].

The objectives of character education put forward by the Ministry of Education of the Republic of Indonesia are a). Developing the development of conscience / affective as human beings and citizens who uphold cultural values and national character, b). Developing a commendable attitude habit that is in line with universal values and religious and cultural traditions of the nation, c). To instill a spirit of leadership and responsibility as the next generation, d). Developing the abilities of students to become independent, creative, nationalistic people, and e). Develop a school environment that is safe, honest, full of creativity and a friendly learning environment, and has a high sense of nationality and is full of strength (dignity) [22].

Character is the values of human behavior related to God, self, people, environment, and nationality, which are manifested in thoughts, attitudes, feelings, words, and actions based on religious norms, law, manners, culture, and customs [27]. Character education is a teacher's effort to shape student character. Besides the term character, we also know the word moral. Based on the meaning of the word in the dictionary, there is no significant difference between character and morals. Character and morals are defined as actions that occur without thinking (spontaneously) because both morals and morals are embedded in the mind, in other words, they can be called habits. [28].

The application of the value of character education can be done through learning, that is by including character values in each lesson because in each learning not only requires cognitive aspects but also affective and psychomotor. In Presidential Regulation (PERPRES) number 28 of 2017, the president divides the values of character education into 18 parts. One of the 18 characters is ‘hard work’. The character of hard work is persistence in trying to get the target, this character education is said to be important to improve the life of the nation in aim to fight for the ideals of the nation’s generation to shape a good golden generation character [29]. If we look at the Purpose of National Education in UUSPN (Indonesian Law) No. 20 of 2003, the desired national character in national education is the character that aims at developing the potential of students to become people who believe in God, have good

character, are healthy, knowledgeable, capable, creative, independent, and become citizens of a democratic and responsible [30]

In order for humans to have good character, character education is required since they are in school. Character education is a process of cultural internalization within a person and society to make humans and society have good morals. Thomas Lickona emphasizes the three components of good character: moral knowledge (moral knowledge), moral feeling (moral feeling), and moral action (moral action). The three parts of the character components have a relationship that is interrelated with one another. According to Lickona, good characters are: knowing good things, wanting good things, and doing good things. The character is expected to become a habit in thinking, a habit in the heart, and a habit in action [31]. The development of skills and character is one of the important efforts in preparing Indonesian youth in a global economic competition [2].

3 Research Methodology

This literature review focuses on the Principal's Leadership in Shaping the Character of the Indonesian Gold Generation. The authors conducted a study of this literature after determining the topic of writing and establishing the formulation of the problem, before plunging into the field to collect the necessary data. Data collection is done using Google scholar searching for articles and international and national journals with the keywords principal's leadership, character education, golden generation. The search ranged from 2015-2020 and total of 150 articles were identified.

The criteria for inclusion in this study are as follows:

a. Quantitative results from the principal's leadership in shaping the character of Indonesia golden generation .
b. This research is carried out in the world
c. This research uses English
d. Dissertations and theses are excluded

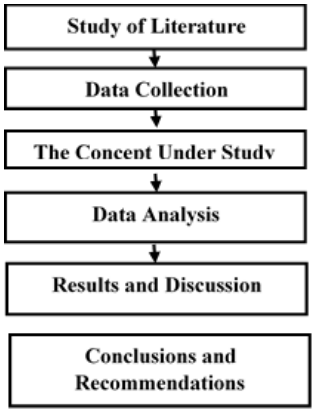

Fig 1. Flow of Literature Review

4 Results and Discussions

Table 1. The Principal's Leadership in Shaping the Character of Indonesia's Golden Generation

Author and Year of Publication	Title	Country	Methods	Sample	Results
Abdullah, Waluyo and Wardani (2019)	Hard Work Character Education in the Novel Merindu Baginda Nabi by Habiburrahman El-Shirazy	Indonesia	Qualitative	-	Describe some of the values of character education of hard work in the novel longing for the king's prophet by Habiburrahman El-Shirazy.
Abdullah, Hastuti, and Karmila (2015)	Lego (bingo puzzle) games: character education-based educational media in elementary school-age children in realizing Indonesia's Golden Generation	Indonesia	Qualitative Descriptive	-	Lego games learning media were created with the aim that students are easy to apply and get used to applying the values of character education, which has implications for the formation of the personality of students as good shoots nation.
Anggi (2018)	Al-Quran Perspective Hadith Character Education	Indonesia	Qualitative	-	The hadith appeared in this study contains human character or behavior towards God, self, fellow human beings, and the environment. Some concepts of character education that can be revealed from the Quran and the Hadith are First, the basis of character education, Second. The concept of character education in Islam. Third, the stages of forming character education. Fourth, the internalization character education method. Fifth,

					the role of teachers and parents in character education.
Aprilana, Kristiawan and Hafulyon	Madrasah Head Leadership in Creating Effective Learning in Madrasah Ibtidaiyyah Rahmah El Yunusiyyah Diniyyah Princess Padang Panjang	Indonesia	Qualitative	1 Principal	Effective learning is done to produce good student attitudes and achievements. The principal's leadership looks good because his concern continues to develop teacher and student participation. Headmaster applied 1) technical skills; 2) human skills; and 3) conceptual skills in his leadership.
Aravena (2019)	Destructive Leadership Behavior: An Exploratory Study in Chile	Chile	Qualitative research based on interpretive phenomena	207 (34%) teachers	Leaders who are often labeled as destructive show autocratic leadership, poor communication, inconsistent behavior, and poor strategic skills.
Azhary, Handoyo, and Khafid (2018)	The implementation of integrated character education in policy design at SD Muhammadiyah (Plus) Salatiga	Indonesia	Qualitative	-	SD Muhammadiyah (Plus) Salatiga has implemented character education that is integrated into school policies, this is evidenced by the inclusion of environmental, religious, autonomous, loving, homeland character values in the vision, mission and school programs. An honest, conscientious, innovative, and independent character has also been integrated into the classroom, this is seen in the Lesson Plans and the media created by the teachers.
Brooks &	Culturally	Philippines	Qualitative	42	Explicitly emphasizes

Brooks (2019)	(Ir)relevant school leadership: Ethnoreligious conflict and school administration in the Philippines			Principals	the importance of principals' meaningful preparation and professional development programs that cultivate culturally relevant leadership skills, reflective practices, and intercultural understanding in ways that can be applied locally.
Dekawati (2020)	The Principal's Leadership As The Effort To Build Students' Character	Indonesia	Qualitative	85 Teachers	The principal's leadership is an alternative way to build student character. Based on the results, the author suggests that (1) the principal increases information disclosure through communication by maximizing digital communication facilities and hold flag ceremonies to be delivered information optimally. (2) The principal builds solid teamwork and participates in social activities in collaboration with local communities in protecting the environment.
Dou, Devos, and Valcke (2017)	The relationships between school autonomy gap, principal leadership, teachers' job satisfaction, and organizational commitment	China	Quantitative	528 Teachers and 59 Principals	The significance of instructional and transformational leadership on teacher's job satisfaction and organizational commitment, mediated by the indirect impacts of the school climate and teacher's self-efficacy. The school autonomy gap, which is closely related to the leadership of the school principal,

					appears as an important effect.
Eisenschmidt, Kuusisto, Poom-Valicks, and Tirri (2019)	Virtues That Create Purpose For Ethical Leadership: Exemplary Principals From Estonia And Finland	Finlandia	Qualitative	-	In building schools for future generations, principals must demonstrate virtue, wisdom and knowledge in creating a long-term vision for the school.
Farida (2016)	Pendidikan Karakter Dalam Prespektif Islam	Indonesia	Qualitative	-	The Qur'an very firmly provides concrete solutions for us to develop spiritual, emotional, and intellectual awareness which not only become theories, but the Qur'an commands to translate them into daily life.
Ismail (2018)	Pengembangan Karakter melalui Pendidikan Agama Islam	Indonesia	Qualitative	-	Character development through Islamic religious education in Indonesia and its correlation with the mental and spiritual development of the nation's children.
Jamrah (2017)	Shaping Golden Generation Through Character Education Toward 100 Years Indonesia	Indonesia	Qualitative	-	The golden generation must be ready from now through education. In addition to building knowledge competence (Cognitive) and skills (psychomotor), balance is also very important with building character (affective).
Jones (2015)	Contemporary challenges and changes: principals' leadership practices in Malaysia	Malaysia	Quantitative	7 Systems Leadership Study	Empirical evidence is emerging about principals' leadership practices and highlights some of the challenges associated with new accountability expectations and demands given to actors in Malaysia.
Lijuan,	Principal	Hong	cross-	32	The various dimensions

Hallinger, and Ko (2016)	leadership and school capacity effects on teacher learning in Hong Kong.	Kong.	sectional a Quantitative method	elementa ry schools	of the leadership of the principal make a significant contribution to the capacity of the school and the professional learning of teachers. The presence of cooperation, trust, communication, support for students, and alignments, coherence, and structure in schools also influence teacher professional learning.
Mahara, Harun, and Usman (2017)	Principal's leadership style in improving teacher discipline in MAN Pegasing, Central Aceh district.	Indonesia	Qualitative	-	Research limitations / implications (1) MAN Pegasing's style in Central Aceh District in improving teacher discipline is in an authoritarian and democratic style (2) MAN Pegasing's principal in Central Aceh District has obstacles in increasing teacher discipline in schools.
Maryam, Ummah, Munjin, and Faris (2017)	1 Hour Q-Time as a Preventive Effort of Juvenile Delinquencies to Prepare the Golden Generation of Indonesia 2045	Indonesia	Qualitative	-	Describe the idea of creating new innovative programs to improve family harmony with character education
Murniati (2018)	Principal's Leadership in Improving Teacher Professional Competence at SD Negeri 13 Banda Aceh City.	Indonesia	ex post facto	279 students	Teacher professional Competence and learning discipline significantly influence social studies learning outcomes. Teachers should always try to improve their professional competence and are expected to discipline students to learn well at home and

					school.
Murwaningsih, Fadhilah, and Sholeh (2020)	The Implementation of Characters' Values Through Local Wisdom of Sadranan in Elementary Schools	Indonesia	Qualitative	-	The application of local wisdom can be achieved by habituation and integration local wisdom values become class lessons.
Quin, Deries, Bischoff, and Johnson (2015)	Comparison of Transformational Leadership Practices: Implications for School Districts and Principal Preparation Programs	USA	Qualitative	92 Teachers	(a) principals in high-performance schools more often apply leadership practices than principals in low-performing schools and (b) inspire a shared vision and challenge the process in two practices that have the greatest impact on student achievement.
Rina, Murtini, and Indriayu (2018)	Establishment of entrepreneurial character in the foundation based school system through project-based learning	Indonesia	Qualitative	-	Show those learning activities based on activities on the project form entrepreneur according to the level of entrepreneurship of students' education level. The character of elementary school students is independent, creative, honest, and discs
Septigamandari and Ardipal (2019)	Implementing Character Values through Music Learning in Class V SDN 04 PPA.	Indonesia	Qualitative	Grade 5 Students	Show how the characteristics of planning and creativity in instilling character values through music learning in class V SDN 04 PPA TanjungHarapan District, Solok City
Setiyati (2014)	The influence of the principal's leadership, work motivation, and school culture on teacher performance.	Indonesia	Quantitative	753 Teachers	1) There is a positive and very significant influence from the principal's leadership, work motivation, and school culture on teacher performance with a

					percentage of 42.2%. (2) There is a positive and very significant influence on the principal's leadership on the teacher's performance with a percentage of 18.22% (3) There is a positive and very significant influence of work motivation on teacher performance with a percentage of 13.03% (4) There is a positive and very significant influence of school culture on teacher performance with a percentage of 10.94%.
Simanjuntak (2019)	The Importance of Implementing a Curriculum Based on Strengthening Character Education for the Creation of the Indonesian Golden Generation in 2045	Indonesia	Qualitative	-	This article proposes that all elements of society play an important role in supporting every government program to improve the quality of Indonesian people by improving character education so that it becomes a whole curriculum for the creation of a strong national generation based on Pancasila.
Supriyono (2016)	Developing Character Education Concerning Islamic Perspective: A Conceptual Review	Indonesia	Qualitative	-	Character education in Indonesia already has become a priority and its mandate is mandated to be included in all subjects important through curricular and extra-curricular activities. Practically effective implementation must be taken care of. Suggestive development and implementation of character education

					includes strengthening values people, become good creatures from God as in Faith, and can do good deeds and moral actions in society.
Tingle, Corrales, and Peters (2019)	Leadership development programs: investing in school principals	USA	Quantitative	59 Principals	Principals consider that training activities related to human resources, executive leadership, school culture, and strategic operations, have a "high" influence on their effectiveness as school leaders.
Truong, Hallinger, and Sanga (2017)	Confucian Values and SchoolLeadership in Vietnam: Exploring the Influence ofCulture on Principal DecisionMaking	Vietnam	Qualitative	3 schools	In Vietnam, school leadership must adopt the values of the 'indigenous perspective' to be a good leader for schools.
Angela Urick (2016)	Examining US Principalperceptio n Of Multiple Leadershipstyles Used To Practice Sharedinstruction al Leadership	USA	Quantitative	8,524 Principals	Appropriate improvement in leadership style practice by shared instructional leadership may not be defined by categorized needs.
Wardoyo (2015)	Character Education: Building the National Identity Towards a Religious 2045 Gold Generation	Indonesia	Qualitative	-	All elements of society must play an active role in achieving these goals through character education to achieve the golden generation of 2045 which is religious.
Widodo (2019)	Strengthening character education at SD Muhammadiyah Macanan Sleman Yogyakarta	Indonesia	Qualitative	1 Principal, 6 teachers dan 6 students	Strengthening religious character education is carried out integrated with several subjects such as Islam, al-Islam, Arabic, worship practices, and Muhammadiyah. Strengthening nationalism character

	education through routine flag ceremony activities every Monday, and batik extracurricular activities. Strengthening independent character education, namely students making class rules (golden class). Strengthening mutual education character education, that is, students help each other in doing each activity. Strengthening character integrity education, that is, students are responsible for doing learning and in activities outside the classroom.

Source: Data Adapted from various publication mentioned

This section reports the main findings of the article being reviewed. The analysis shows that most of the articles focus on the Principal's Leadership, the Character of the Indonesian Gold Generation. The articles that have been reviewed are research conducted in several countries. Based on the articles reviewed, there are various ways of collecting data related to school principal leadership and the formation of the character of the golden generation of Indonesia. The research method used from article to article. The most commonly used method is by using interviews and observations used by [24], [18], [22], [25], [5], [31], [4].

Research on the principal's leadership in shaping the character of the golden generation has been carried out in Indonesia and various organizations in various countries. Table 1 shows that research has been carried out in schools, universities, and schools. The results of the majority of studies indicate that the leadership of the principal is an alternative way to build an integrated character in school policy, by incorporating the values of environmental, religious, autonomous, autonomous, loving character of the motherland, courtesy and courtesy in the vision, mission and programs school. To create a golden generation of Indonesia, all elements of society must play a role in supporting every government program to improve the quality of Indonesian by enhancing character education, so it becomes a comprehensive curriculum for the creation of a golden generation of Indonesia that is a strong national successor based on religious Pancasila.

5 Conclusion

The results based on the literature review, it can be concluded that principal leadership has a positive and significant effect on character education in various countries including Indonesia. This shows that the principal's leadership will influence the character of the golden generation. The conclusions from this study were generally obtained when the authors considered all the study reviews, which showed that the principal's leadership was very important for shaping the students' character in preparing for Indonesia's golden generation. The broad conclusion is that when the writer considers all the study reviews of the principal's leadership in shaping the character of the golden generation in Indonesia, it shows that the leadership of the principal is very important for the formation of student character in preparing for the golden generation of Indonesia. This means that the leadership of the principal plays an important role and has a big impact in determining the character formation of Indonesia's golden generation.

Limitation and Study Forward

As with research, this review has limitations. First, the articles were reviewed more in English so other studies were not reviewed because of limitations in the context of some countries. Second, dissertations and theses are not discussed in this article because they can cause publication bias in the results. Third, the scope of the article being reviewed is still limited. The researchers hope there will be further research on the Principal's Leadership, Character of Indonesia's Golden Generation.

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Visionary Leadership: What, Why, and How

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Abstract. This study examines how principals practiced visionary leadership with all its dynamics. We studied what, why, and how visionary leadership emerges. This research used a literature review from selected articles. This research examined the leadership of principals from the visionary leadership studies domain. The journal articles, which are reviewed, are from which have functioned to become as major outlets for visionary leadership research by principals and in a wider area within the scope of education to gain awareness of the increasing need for visionary leader importance in some of the research findings in the field. The authors concluded that (1) visionary leadership is leadership behavior that has personal characteristics and the ability to see holistically to create, articulate, interpret, imagine, and communicate, reinterpret school goals to followers to achieve school goals as a form of school anticipation of changes in the future. (2) visionary leadership is enlightening, therefore something good should be done properly as well as action a complete human being as a human being with its human values, and (3) visionary leadership throughout each country tailored to such characteristics as ideological, political, economic, social, and cultural respectively aspects.

Keywords: principal's leadership, visionary leadership, and practice.

1 Introduction

The leadership of Visionary is as important visionary behavior of leadership and individual attribute that need to demonstrate by a leader to have a constructive effect on an institution [1]. Successful principals own the ability to see. Leaders like to believe in the designation of the coming time and not just for the time being [2].

In the trading field, the future sight is a statement of a leader's ideology about the long-run future intended for an institution. A vision explains the dreamed future that a principal needs to create, and is formed in what is called a sight statement. Most sight statements aimed to get on the planned timetable; preferably, they intended to chase or carry out a single day in the end. Vision often told through real cases, recitals, or comparisons that legibly illustrate the intended long-run situation. For instance, the sight statement of one florist is that he does not trade flowers they trade beauty [3]. Quick alter, growth, and organizational success in the common sector depend on the leader as an important person in expanding success for the organization. Leadership is an essesntial key factor in msking an organization's success or failure. Organizational success does not depend on stages, habit, technique, engineering, and

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management by science, but rather because of the leaders role with both sight and capacity to make their coming time [4].

Behavior of visionary leadership exeeds beyond developing sight and transmition and shift across theories leadership. Visionary leadership has a constructive impact on members outcomes, yielding in top trust in leaders, top devotion to leaders, top grade of work among members, and top thoroughly institutional work [5], [6], [7], [8]. Visionary leadership growed from broad leadership of transaction, including leadership of charismatic, and leadership of culture [9]. The five visionary leadership principles are 1) heads do, challenge work, create change, and increase follwers in owning new initiatives and challenging thought. 2) Inspirational motives and enthusiasm by growing a distributed vision with followers; 3) advancement of teamwork and support of followers; 4) set as a examplery for followers; 5) major successes in enthusiasm working.

Bennis [10] states four leadership competency needs by each organization, including 1) environmental context and people who understand reason; 2) linking the creation of relationships within and between organizations; 3) vision to draw an acceptable picture in the future, 4) finding the development of new guidelines to achieve the vision [11].

Among educational stakeholders, there is much speculation about nature, efforts, attributes, and behaviors that signalize successful leaders. Historically, leadership is as a thought has investigated, reinterpreted, and redefined in schooling [12]. Distinguished practices of leadership and ideology have generated notice and dispute among chairman who recognizes and connects themselves to particular approaches to leadership.

This study, the principal's leadership, examined from the domain of visionary leadership studies. The journal articles, which the authors reviewed, are from which have functioned to become as major outlets for visionary leadership research by principals and in a wider area within the scope of education to gain awareness of the increasing need for visionary leader importance in some of the research findings in the field.

An examination of visionary leadership articles and practicing perceptions of principals' leadership is implicit in the conceptualization of this study. The articles can be quantitative, survey, and qualitative methodologies used to illustrate the practice of the principal of the visionary leadership and to explain the array of their visionary leadership in the description. The authors posed the following research questions:

1. How did the researches define visionary leadership?
2. How does visionary leadership matter?
3. How did the principals implement in schools?

2 Methodology of Research

A search made to identify published articles, which examined the practice of visionary leadership, by school principals. We used Google Scholar electronic databases that collectively cover a large span of management journals and journal of application of psychology. We include words and their combinations to form search phrases from the words visionary, principalship, education, and school. This process produced seven journal articles, which we deemed necessary from search with yield covering dissertations, conference papers, journal articles, books, and processes, and working papers with various approaches, both qualitative, quantitative, and serving. From this category, we explored to be able to answer the research questions that we had compiled.

3. Results of Research

We present the results include Visionary Leadership Attitude, Visionary Leadership and the Future, Principals' Attitudes toward Visionary Leadership, Visionary Leadership Development in Practice, Visionary Leadership of School Principals in Public Middle School, and Visionary Principal's Leadership and Reading Performance,

3.1 Visionary Leadership Attitude

Several education administration professors examined the content validity of the 56-item instrument. The piloting instrument consisted of 24 visionary items with the strongest agreement response patterns, and 11 management items with the strongest dissent, maintained for the revised instrument. These items preserve the findings because they maximize the difference between the visionary and management categories. The number of vision items exceeds the number of management items because the measurement of attitudes towards visionary leadership was the aim of this instrument. The Cronbach's formula used to estimate internal consistency produces an alpha coefficient of 0.87 on the vision items used in the pilot study. The result was a reliability coefficient, as predicted by Cronbach's alpha, for the visionary and management subscales of 0.65 and 0.55, with 0.65 for the total instrument. The coefficients for the five visionary subscales were 0.31, 0.57, 0.63, 0.54, and 0.53 [13].

All data were subjected to a series of factor analyzes. The initial factor analysis, using management and the visionary five subscales as variables, was the analysis of the main components using the SAS FACTOR procedure (SAS FACTOR was software that performed various general and rotational factors and component analysis). Estimates of one similarity were used, and there were no eigenvalues (each of a set of parameter values whose differential equation has a zero solution) under certain specified minimum conditions. The eigenvalue, or amount of variance explained by each of the six factors, was 2.94, 0.89, 0.69, 0.52, 0.49, and 0.47. For this principal component analysis, a loading factor of 0.7 or greater is considered prominent. The interpretation of these factors was rather clear. All vision subscales were strongly contained in the first factor, and management subscales were strongly contained in the second factor [13].

To further strengthening the two-factor vision and management solution, a second major component factor analysis was carried out using all 35 items as variables. Again, similarity estimates were used, and no minimum eigenvalue was specified. Because only two factors were interpreted, the eigenvalues for factors one and two were 5.80 and 2.14, respectively. For the analysis of these main components, loading factors of 0.25 or greater were considered sufficient. Factor loading for principal component analysis used 35 items as variables.

Of the eleven management items, nine were included on management factors, one (item 9) was loaded on vision factors, and one (item 16) was loaded on both factors. These items must be revised or removed from the instrument. Two items were loaded on both management and vision factors. One (item 5) contains higher management factors and was an acceptable management item. The others (item 18) were loaded higher on the vision factor and must be revised to reduce ambiguity. All 24 vision-items were included in the vision factor, although four items (21, 27, 29, and 32) were also included in the management factor. In all four cases, the higher loading was on the vision factor as expected. Several explanations made sense for double loading. This analysis showed the overlap between management's vision and conceptualization, especially in terms of commitment to school goals. Besides, loading could suggest alternative interpretations of the intended meaning of the selected term. For example,

some respondents could conceptualize adult males as leaders who created new ideas or took risks in the context of their administrative duties. However, the item was intended to describe proactive leadership [13].

Researchers sought to further refine and expand the visionary style to support the five dominant attributes of visionary leaders, two additional rotational factor analyzes were carried out. However, very few loading factors that reached criteria 0.25 or greater than this solution could not be maintained. Therefore, leadership seemed to fall into two categories, managerial and visionary, and further subdivisions of the visionary style were unwarranted [13].

The analysis of attitude instruments designed by the researchers described in this study showed that the ideal conceptualization of visionary leadership needed further exploration. Two factors were maintained to support researchers' speculation that visionary attributes were conceptually different from managerial qualities, although both could be demonstrated by a practicing leader. Further classification of items into classes corresponding to dominant visionary attributes was not supported by factor analysis. Some items were ambiguous and must be reconsidered. Further improvements were needed to improve the accuracy of instrument measurements. However, the development of exploration and analysis showed that it had potential as a tool for the assessment of attitudes towards the conception of leadership labeled visionary.

Given the advocacy supported by research for dynamic leadership that correlates with changes in schools, there were timely and relevant instruments. Providing a variety of valid methods for assessing individual leadership trends would be very helpful for diagnostic purposes. The candidate's attitude to enroll in a leadership preparation program could be assessed as one of the many data sources for screening procedures. Variations between individual perceptions about the role of leadership could become clear through the use of a series of diagnostic procedures. Those who showed a tendency to accelerate change were promising candidates for preparatory programs and for recruitment or promotion in districts that support education restructuring.

Data from attitude assessment could be used to plan and modify teaching programs according to the needs indicated. Preparatory programs could be designed to take advantage of existing attitudes or encourage perceptions of new leadership. Professional development experience could be individualized to improve the visionary abilities to practice school leaders. The mandate to empower visionary leaders was urgent given the demands for successful reforms in schools [13].

3.2 Visionary Leadership and the Future

Placing a sight was not only a new path to say placing goals or long-run preparation. This was the main responsibility for school leaders at this time, and it passed the top in ahead-thought, innovative preparation, and group involvement. That's a tough task but not the scary one. Visionary leadership involved 1) a serious assessment of your past and present preparation, your accomplishment, and want to revise goals; 2) identify trends and problems that arise, and thought of their possible effect on approach and agendas; 3) setting aims that could be achieved. Referring to the knowledge and experience, the leader got from the past and the determination of needs in the future; 4) dedication to vision (no body has ever succeeded in doing an effort that was not carried out by people who allied); 5) the involvement of others in developing their vision and empowerment to act on that vision; application; and 6) agreement to do the innovations needed to increase the probale to success [14].

3.3 Wise Visionary advice

Below are the valuable advices to implement the visionary leadership phases. Disseminating; ask for advice from others and broadcast to get broad participation in developing and implementing a vision. The action was to ensure that leaders consider all alternatives in preparing the school to change and may be able to have the best brand that would resist change. Request what followers thought should be done. Gather information and advice from teachers, school personnel, parents, group members, tragde leaders, and pupils about what could make it better and change could be done. Consider a committees retreated to discuss other possibility and investigate future probabilities.

Being realistic confident; be realistic; new thoughts would lose effect if they were sought to be too forceful. Evaluate your vision with insiders and knowledgeable followers. However, in the end, as far as the vision seemed achievable even if it required extraordinary effort and some luck pauses for it, so don't be afraid to stretch it a bit and go for it.

Looking for support; anticipating all possible in the future to think of everything that might happen is to listen to all the opinions of experts who could be obtained; critically examine conventional wisdom, and arrange various options. The building was a vision statement that flexibility, do not be too specific to avoid actions that do not need. A flexible response process would allow leaders to react more quickly to changes or unexpected events with minimal disruption [14].

Use the ongoing assessment way that you will apply with any new agendas or policy. In terms of your statement sight, you will need to track tendencies and problems that arise to be ready for their influence on the future of the leader. A smart leader does not hold on to the warning to be voiced before reasoning of alternatives and the new array [15].

Acting balanced; acting in balance made the organization very resistant to change. This includes schools but, not as recommended by discussant of the state school system was certainly a denial part. Sometimes rejection could avoid us creating not needed or foolish changes, and could prevent us from responding too quickly and/or inappropriately to the current crisis. However, the same refusal to accept could avoid necessary changes. Often, it was an organizational structure that impeded our capability to react to new requirements. Maybe a review of that structure and some internal reorganization would expand the capacity of the system to receive, even encourage, positive change.

Getting the bottom line wasn't enough; for teachers and school commitee members, the core was, in the long-run producing excellent education and equitable for all students. In the short term, there were many things, including dropout rates, graduation rates, achievement scores, and implementation of education programs and services needed by public school pulpis and their families. Dr. Nanus did not propose that these goals were not very important, but paying attention to short-term results often made it tougher to think strategically. Another instance was home from business to explain the point. Many growing institutions valued their clients as a top prime concern. Their followers are number two, and investors are only the next when making difficult decisions. They understand that if they do the right thing, they would secure the loyalty and support of clients and workers, and appreciation, for investors would follow. But if they anxiety first about the core, they proposed to make decisions that took shortcuts in the market or unsuccessful to involve staff. In the long run, investors would hurt the most [16].

Progressive schools prioritize pupils over teachers and school staff, and third, societal demands. That's the order in which school leaders make difficult choices. School committee members and school supervisors know that making choices will improve students' abilities to

study and educators to teach. They will earn the trust and support of pupils, school staff, and parents, and gifts for people will join. However, if they are first worried about the yields of the scores, scores, they are statistically more likely to make unhealthy decisions or fail to get support. In the long term, society will hurt the most [14].

Being tough; usually, there are varied ways different to achieve the goals. By encouraging optimal involvement, school personnel and members of the school community in preparing and actuating the vision of the school district, principals will make it possible to distribute ownership of the sight, to accept responsibility for it, and to have a sense of attainment that comes from making it work. However, when leaders encourage involvement, leaders must be prepared and willing to praise people for their initiative and put up with followers' mistakes.

Nanus suggested other benefits that could be obtained from involving others in the procedures. Apart from the energetic features of an approach, it also lets many small experiments and learning experiences occur, and it isolates organizations from large mistakes that will pretty much certainly come behind from top-down planning or supervision [14].

Acting on time; the best time to prepare and to talk about creating growth is when things look their top. It is a very big assignment to propose new choices and try to implement change when difficult times or crises have grown. Nobody wants to talk about a vision for the future or new innovative approaches when there are serious problems. It is important to take the time to expand your school board's vision and implement an ongoing and systematic process that will allow you to respond to changes triggered by outsiders that have the potential to impact your school.

The vision now for the vision would come; the essential of visionary leadership could not be exaggerated. Establishing an educational vision sends back the top of the past and supplies the future. It built on the impression got over decades of experimental programs and at the same time, expressed an increase in the value of education to local communities and the national economic system. It emphasizes students as individuals and as our future leaders. This increased the importance of growing a sense of professionalism and critical value in educators.

It recognized the essence of developing alliances in the education group to give our children a chance to succeed in this tricky global society. This clearly illustrated the role of the local school committee, to help safeguard the nation's freedom, plan the economy for prosperity, and enrich people's lives, all constantly striving to foster excellence and equality in primary and secondary education generally for all pupils [14].

In short, it was visionary leadership. This was a means to achieve the educational mission and local school council that could unite all communities well in our democratic parents' community groups and all other parties who cared about education effectively and responsibly to initiate a vision and buck up the lasting shift in our school [14].

3.4 Principals' Attitudes toward Visionary Leadership

One of the characteristics possessed by visionary leaders was having strong personal beliefs and values. Experts had noted that prominent principals were individuals whose commitment to their own beliefs was visible. Visionary principles were proactively aggressive in directing activities in their schools towards the realization of goals that were consistent with their personal beliefs. Educational goals that are personally important for principals were very important in school life because visionary principals were determined to realize their own goals [17]-[19].

Schools led by visionary principals and companies led by visionary executives were also characterized by observable manifestations of shared ideology [20]-[22], [18]. Ideological attitudes were manifested in the verbalization, behavior, and interaction of people who were members of the school or organizational culture. There was a clear understanding of shared goals, distribute beliefs and values, and hinged metaphors that appear for the image of the institution. Almost all importantly, followers of culture consciously directed their energy toward the realization of the common age. Visionary leaders recognized the strong influence of ideology and successfully used cultural processes to make distributed ideologies.

Visionary chairman gained a reputation as innovative individuals. They were driven by the wish to make new directions and start new actions in their institution [20]. Their firm orientation to change was completed by the individual image of their institution in the future. The school they envisioned under their leader's ship was specifically better in some ways than it is today. Often, in time, their vision was shown to show prophetic wisdom [20], [17].

Non-visionary leaders, by contrast, were more focused on firmness than change. Their explanation of their leadership focused on preserving the immediate processes needed for daily orders at school [23]. They emphasized the control for continuing school operations rather than the encouragement for envisioning and achieving long-term goals. Wolcott's case study of non-visionary principals explicitly showed managerial concern with direct events and the absence of deliberate action for change or future vision [24].

Because the visionary leadership style had emerged as a prominent principal characteristic, the focus of this research article was on the principal's tendency to think and act in a visionary manner. Principals' attitudes toward visionary leadership were assessed through surveys of practitioners who represented existing leadership [5], [6].

The generalization that good principals had visionary leadership attributes were substituted in previous research. The principals who participated in the studies were generally selected based on an outstanding reputation. This research contributed to a new dimension by measuring the attitudes of more representative groups. There was reason to suggest that, in general, public school principals highly respect visionary leadership. While the question of how principals who responded to employ visionary leadership in their schools was beyond the scope of this study, their positive attitude towards it implies that principals believe in the importance of innovation, a sense of control for their school, and a vision for the time to come [5].

Grady and LeSourd stated that there were inconsistencies between individual responses. For example, some school principals agreed that it was important to do what others expected and disagreed with statements about achieving personal goals at school. However, visionary leaders were characterized by independent decision-making, decisive goal setting, and actions that promoted their vision. Reluctance to impose personal goals could illustrate the differences between public school leaders and company executives. Executives were described as progressive when they regulated the color of the organization by imposing their ideology. Perhaps the role of public services from education influenced the principal to avoid unilateral allies. They surveyed school officials strongly believed in the value of the shared school ideology that stood out but did not necessarily believe that it was their ideology. Data shows that principals had doubts about whether their advantages and trust should be the values and beliefs of school culture [5].

Some school principals agreed that their own beliefs should stand out in a school setting, but they were not forced. Maybe coercion remained coercion and is not pleasant. If so, the question of how principals would make their beliefs stand out comes to mind. Nearly half of the respondents in this study showed a positive attitude towards smooth communication of

school goals and the articulation of strong school goals. Perhaps they used both choices and did not consider the statement as representative of different leadership characteristics [6].

Finally, the principal agreed that they must do what was necessary to get the results they wanted and, at the same time, achieved what others expected. Group of school principals others opposed both statements. This disagreement could show an unwillingness to lead with a single goal and lead with a reaction. On the other hand, acceptance of both statements could indicate that some school principals were trying to achieve their goals while also pleasing others [5].

3.5 Visionary Leadership Development in Practice

Visionary leaders must have the right vision as a guide for staff to work according to directions, counting the rate to have innovations that lead to changes in the time to come. Chairman must have competence in interpreting their sight in order to it could be explicitly known by followers. They must state their sight orally and practical conduct, and had competence in relating to their distinct explication. Requirements by for visionary leaders were: (1) communicate vision, which is caused by organizational comprehension, organizational workers, and the milieu; (2) prejudice-free who can reach the future; (3) competence in creating networks and teamwork, and develop a culture for superb work reinforcement; (4) competence in expanding interactions with people via two-way communication, recognize the importance of community and participation, and; (5) the expansion of reliable individual custom, for example, communicative clearness, self-confidence, studying failure as someone's impression in developing opportunities, comprehending workers' weak matters and utilize references to increase their solid points [25]-[28].

Visionary school leaders worked in an integrative system by linking vision with determined aims, focusing on holistic views utilizing their tenacity, intentions, and practice. These leaders were visionary and product-oriented and looking at their time to come with the need for a broad vision and imagination for school success. The leaders of vision of school leaders need that they must have competence in deciding the vision appropriately. School leaders must inspire the fabrication of staff, and used the power of incentives to direct their workers to work whilst following the goals set to be successful [29].

Also, school leaders must direct their workers well ahead of conventional thinking, communication, and information transfer frameworks, and develop staff potential continuously to utilize their knowledge and competencies for schools [30], [31], [28], [32].

Through home visits, visionary leadership consists of theoretical consideration of correspondence between the duties and person. The visionary leadership model had determined the primary responsibility of leaders for communicating vision understanding was seeing the way the association will take. This sight must be exact and draw workers to know a obvious time to come. Vision must be transformed into actions that led to real intentions and practical work activities [33].

Learning from Thailand's experience, as a whole, the situation and needs in expanding visionary leadership managers in Thai primary schools were at a great degree. We know that single detail was at a high level. An assessment of the necessity of visionary leadership managers in the Thai primary schools was at the top degree. In view of every facet, every aspect was at the top level. That is by the findings of the study which states that the leader of the new tide of Thai bureaucracy needed training and expanding their leadership in 3 main

stages: 1) Individual skills, 2) Bureaucratic mastery, and 3) Administrative knowledge. It was found that individual skills, relatively, at a top degree [34].

There was a need assessment for training and development in the following areas: development of teamwork; 2) Problem solving; 3) Creativity; 4) Bargaining; 5) Personality development; 6) Presentation; 7) Communication in what knowledge about the bureaucracy, as a whole, at the level of high [34].

It was an evaluation of the need to develop visionary leadership. The areas were 1)Prudent thinking, 2) Structured thinking, 3) Leadership, 4) Transactional Management, 5) Dispute Adminstration, 6) Crises Management, 7) Capability, 8) Moral Leader, 9) Administration and knowledge management, 10) Risk Administration, 11) Enough economics, 12) Teamwork management, 13) management of Finance, 14) Marketing management, and 15) Innate role and role in development [34].

The executive underwriting centers owned their base of leadership on full guidance, varying from small to medium grades in 12 parts. The following factors were as: (1) Laissez-faire; (2) contingency leadership; (3) progressive passive leadership; (4) participative leadership; (5) Static characteristics; (6) Charismatic behavior; (7) Inspirational development; (8) Intellectual motivation; (9) Individual recognition; (10) The results of satisfaction of leadership; (11) The results of leadership in the particular attempt, and; (12) Ineffectiveness of leadership results [34].

A primary school administrator had a high degree of utterance in decentralized leadership at a high degree. It was no important distinction in decentralized leadership between man and woman leaders, and a various lifetime of leaders. Besides, it was a noteworthy distinction in decentralized authority between leaders working in schools of different sizes, distinction impression in being school leaders, and distinction school degrees at the 0.05 level [35].

The behavior of workers to education was based on the sight and findings of the study. The finding that workers to teaching used their ability to make, disseminate, and practice their sight in terms of involvement, empowerment, hazard, proper connection, reliable growth, student underpin, work commitment, attention and sight investigation all the time, allotment of resources, expert growth for self-growth and group members [36].

The growth of the Program for Leadership of Visionary Leaders in Thai Primary Schools. The Programs were based on 1) historical setting and the significance of the agendas; 2) program aims; 3) design and engineering in growth; 4) program setup; 5) program content and material, consisting of 3 Books, including Book l; vision formulation, Book; 2 vision communication, and Book 3; the vision of implementation. The time span of training was 169 hours.

The plot and growth techniques covered 1) Tutorial, 2) Independent learning, 3) Excursion studies, and 4)Factual application. For development implementation, four steps are determined for the development process, as follows: Stage 1; Pretest, Stage 2; Development, Stage 3; Integration, and; Stage 4: Post-test. This was corresponding to the studies that proved that there should be variation, and the load should cover a single kind of competence and cover nine units of study. The time span for training was 180 hours equivalent to 5 weeks [37].

The training concentrated on factual practice. The members must assess themselves and be assessed by their supervisor, participants, and co-workers before and after development. There were appropriate criteria for evaluation. This was supported by the finding that the new waved leaders in the Thai administration had their needs for training and development through learning by conducting, for example, the use of case studies, simulations, business games, and role-playing at a high level. The timespan for growth was 2 weeks-1 [34].

The participants' needs were at a high degree. This was according to research findings that there are four parts of a competence development program for an elementary school administrator. Section 1: Initiation; Section 2; details in the competency development program for elementary school administrators; Section 3: an effective assessment tool for competency growth programs for primary school leaders in fieldwork studies, and; Section 4: guidelines, provisions, indicators of success in making use of competency development programs [34].

This was carried oy by the study discovering where it found that the program development of professional competence of small schools in 8 units was appropriate and ranged from a high level to the top. It was underpinned by study findings that specified that the operation of growth in the attribute of the administrator of the school leaders included 5 steps: 1) preparation; 2) preparation for evaluation before development; 3) growth; 4) assessment after growth, and; 5) growth. These were all congruent with the research findings said that the leadership of school administrators' small model of development implemented in three phases. Stage 1: the pre-action; Phase 2: actions consisting of (1) in-depth teaching; (2) workshops for 8 meetings, twice a week, making used leadership growth handbooks in 8 bundles, and field research in best practice schools, Stage 3: follow-up by holding conferences and making use of assessment forms from school leaders' leadership [34].

Technics used to improve the school by studying the development of the vision of school administrators. The participation of the vision and practice of vision found that the workshops in the development of the vision of the school administrator might affect expert growth for school leaders who paid attention to preparing for educators, parents, and pupils to involve in the educational operation [38]. The technique was consistent with Lee and Wong's research on Lucent Technologies' leadership growth agendas with application in growing leadership regularly by setting short courses for experience growth, covering complex simulations, and studying with formal groups, covering group problem solving, studying cases, business games, demonstrations, and role-plays [39]. This is underpinned by Thomas's [38] training of techniques for increasing schools by learning the growth of school leader' sight, involvement in increasing the sight, and vision practices, the findings sum up that workshops in increasing the vision of school leaders must focus on preparing, qualifying educators, parents, and pupils to involve in Educational Management, school leaders had the right individual vision, persistence, and right who can decide the way of the school to achieve its aims [34].

The findings of the visionary leadership leaders growth program in primary schools (from the make use of the program).

The program presented three test results from the Chaiyaphum Educational Service as follows:

Knowledge Test Findings in Visionary Leadership from Elementary School Administrators. Their average pretest score was 17.73 or 59.11 % of the full score of 30. Their average posttest score was 26.00 or 86.67% of the full score of 30. It showed that primary school leaders had an outcome of their post-test at a higher than their pretest scores. Also, everyone passed the 80% criterion. This was under the findings of research studies Chansiri found that: (1) to the participants for self-evaluation, and evaluated by a super-ordinate, sub-ordinate them, and colleagues, they had a core competency before training (pretest), overall, high level. The post-test mean score was importantly higher than the pretest at the 0.01 level [37].

Evaluation Findings in Visionary Leadership of Elementary School Administrators. Visionary leadership, as an entire, was at a high degree. Post-test, generally, was at a high

degree. Contrasting of primary school leaders' visionary leadership between posttest and follow-up, found that the primary school leaders' visionary leadership during follow-up was higher than the post-test of primary school administrators' visionary leadership. This underpinned by research findings, which established that, the average score of the highest pretest covering competence 2: ethical administrator and role models. The second succession was competency 10: moral improvement for educators and staff education. For the post-test, the top average outcome was competency 6: organizational management, management structure, and establishment of control to educators and staff education. The second succession was competence 2: ethical administrators, and role models. The feature in the leadership of school administrators, as a whole, was at an average degree. The top average score of each aspect is the relationship between leaders and schoolteachers, the bottom average grade was the growth of vision, and the relationship between school and society. This underpinned by research that discovered that the experimental group had the capability in increasing their leadership at a better top-level than the control group. Also, they had a post-test leadership at a higher degree, which shows that training programs can help participants to had a better leadership growth [40], [34].

Evaluative Findings of Participant Satisfaction in the Leadership Development Program. Visionaries of Leaders in Elementary Schools, overall, every aspect is at a high level. The teachers had contentment in a sample of planned leadership at high levels [40]. This underpinned by a study that discovered that participants had contentment in the program, as a whole and every aspect, at a high level [37]. Assess discoveries on the level of success in the essence competency growth program, as a whole and in every aspect of the 4 facets, were at a high degree. The highest degree of essence competence was the work team. This was by study findings that discover that satisfaction in training was at the highest standard [34].

The outcome of this research specifies the advantages of the application of a visionary leadership growth program counted three benefits [34] namely: (1) the current situation and needed in developing visionary leadership administrators in Thai elementary schools, overall, at a high level, each aspect were. Assessment of visionary leadership needed for administrators at the highest level, and every aspect is at the highest level. (2) The development program for visionary leadership leaders in Thai primary schools comprised of the following program elements. 1) historical background and significance of the program; 2) program goals; 3) designing and engineering in growth; 4) program structure; 5) program content and material, which made up of 3 books, including book 1: vision formulation; book 2: communication vision; book 3: implementation vision. The duration of training was 169 hours.

Outline and growth techniques comprised of 1) Training, 2) Independent study, 3) Field trip studies, and 4) Factual practice. For growth application, 4 steps are determined for the development process as follows: Step 1: Pretest; Step 2: Growth; Stage 3: Integration; Stage 4: Post-test. (3) Findings from the visionary leadership administrator development program in elementary schools. Concerning the discovery of knowledge tests in the visionary leadership of primary school leaders, the average pretest score was 17.73 or 59.11%, from a full score of 30. Their average Posttest score was 26.00 or 86.67%, from the full score of 30.

This showed that elementary school leaders had their post-test scores at a higher level than the pretest. Besides, each of them could pass the standard specified as 80%. The assessment findings in the visionary leadership of elementary school leaders were at a high level. Post-test, overall, was at the highest level. In comparing the post-test of the visionary leadership of elementary school administrators between the post-test, and follow-up, it found

that the visionary leadership of primary school leaders during the follow-up period was higher than the post-test of primary school leaders of visionary leadership. Evaluative findings of members satisfaction in the visionary leadership in the leader growth program in primary schools, as a whole, every aspect, are at a high degree [34].

3.6 Visionary Leadership of School Principals in Public Middle School

Visionary leaders used vision in their work. Visionary leadership is important; however, there was a lack of research in the context of schools in Indonesia, especially in Lampung schools. Visionary leadership explained as the capability to make and innoculate a clear sight, giving meaning and purpose to the organization [31], [41]. Visionary leaders grow their vision and combined it into a distributed vision with their colleagues. The communicating vision was what empowers people to act. When people did not act, that vision has not been communicated people use up their time searching directions to take, which made them exhausted and unresponsive [7].

Visionary leaders also exhibited confident behavior, pro-social strengths, and organizational abilities for which their followers needed to own science, skills, and abilities to attaint institutional aims goals [42], [43]. Besides, visionary leadership provide a comprehending of personal leadership styles because they were related to the context and effectiveness of the organization [44], [42].

The results showed that visionary leaders are responsible for the growth and success of their organizations [45], [46], [31]. Other researchers reported that visionary leaders could articulate visions, imbue, and empower disciples to get involved and benefit from organizational change and growth. Visionary leadership created high-level unity, loyalty, trust, motivation, and achievement improvement in organizations [47].

Researchers claimed that this happens because vision had a positive effect on the self-concept of followers; followers become motivated to achieve the vision because they felt meaningful, identified, and believed in their vision and ability to achieve it. Successful transmission from visionary leadership changes the attitudes and outputs of subordinates, which resulted in organizational transformation [48]. Such visionary leader behavior will lead to better relationships with their followers. Also, they made followers sacrifice themselves and stimulate subordinates with individual consideration [8].

This study had revealed the following findings. First, principals in state junior high schools in Lampung Province identified that they demonstrated all seven domains of visionary leadership style: stimulating intellectuals, supporting, adapting, developing organizations, taking risks, building images, and empowering. Second, the findings show that all major visionary leadership domains correlated positively and significantly. The highest relationship was between building an image and adapting, followed by the relationship between supporting and the least relationship was between empowering and intellectually stimulating. Third, these findings indicated that there was no statistically important distinction in the main visionary leadership scores for men and women. This finding showed that their followers could accept visionary leaders. Fourth, the findings indicate that there was no statistically significant difference in the principal's visionary leadership score for certified and uncertified teachers in understanding the principal's visionary leadership [49], [50].

This study had implications for theory, practice, and further research. In terms of implications for theory, this study contributed to adding knowledge to the existing literature emphasizing the identification of domains of visionary leadership and the relationships between domains. Regarding the implications for practice, this research was useful for

principals as feedback to enhance their effective leadership. Principals who wanted to improve their schools needed to demonstrate a visionary leadership style with all seven domains. This practice would lead to increased school effectiveness in achieving school goals. Finally, in terms of implications for further research, because this study is limited to using quantitative research using survey questionnaires that lead to a limited understanding of phenomena about how teachers felt about their visionary leadership style; thus, further research must be carried out to overcome this limitation using qualitative research, particularly through in-depth interviews or focus group discussions [50].

3.7 Visionary Principal Leadership and Reading Performance

Exposure to the following excerpted from research in Florida stating that s already been long established that the principal sets the indicator for effective schools and that school leadership has a strong influence on the social environment and the learning of students [51]. “The No Child Left Behind” Act (NCLB) of 2001 placed a recently emphasis on school leadership and emphasized the significance of increasing student academic attaintment in the United States. Therefore, school managers in the 21st century had been named upon to meet instructional leadership standards that were higher than those requested by school principals in the 1990s [52]. They were also demanded to be increasingly focused on helping teachers and students who had low performance and failed to achieve success.

The scarcity of factual researchs had roamed the influence of visionary principals on student reading performance [53]. Although much had been written about the principal's vision, the use of factual validation to probe the relationship between visionary leadership conduct, visionary leadership attributes and thegrowth of visionary practice and student reading performance had been restricted. Several researces if any, had explored the relationship between principals' attributes and standardized test scores [54]. Although there were some advances in the field of research in school successfulness theory, experts have mentioned the rare of research that explored the relationship between leadership and student achievement [55].

Thees findings in this study had been extended to Sashkin's visionary leadership theory and the ability of leaders to influence educational production. Further research ratified that increasing pupils academic attainment requires school head to produce specific responsibilities and had leadership conducts and characteristics that positively influenced school civilization [56]. In this study, a statistically important connection was reveled between the visionary leadership conduct of primary school principals and reading attainment in class 4 and 5, but not in class 3. The shortage of a relationship between the primary school head and reading achievement in grade 3 could show that teaching and learning was a complex practise. Some elements affected pupils educational performance. School financial resources, teacher impression, cooperation, and garde of instruction could affect puplis attaintment [57]. However, it was the major authority to encourage cooperation, inspect educator's teaching practices, compensate educators for performance, and encourage a taste of distribute responsibility [58].

Besides, the relationship between primary school principal visionary practise growth and reading achievement provided factual evidence that could help and promote headmasetes to get more knowledgeable about how school leaders could affect pupils educational perfromance circumstancially by means of their affect on the condition of school institution and quality instruction [59], [60].

It was estimated that the outcome of this research can be useful for state primary school heads in making use of leadership application that could increase reading performance. Few people might debate that visionary leadership was not a obligatory part for improving school reading agendas. However, principals' understanding of reading programs, together their capability to act as instructional and visionary manager, could enable them to affect school reading programs and increase student reading test outcome [54]. Instructional leadership appears to create a cosiderable effect on student outcomes than leadership of transformational [61]. Ylimaki [62] appointed that further study was needed to investigate the leadership of visionary role of headmasters in a underpinned territory [62].

One limitation of this study was to participate in the voluntary nature of investigators and the extent to which the principal gave an honest response to the survey items. An additional restriction in this inquiry was only 32% of 75 state elementary school headmasters had been in their schools for minimum a year or more [63].

Other restriction was that sate primary school principals from one Florida school district chose to involve in this research. For that reason, the oucome could only conclude to other sate schools in the districts. It was with the same demographics as those involving in this research. The outcomes were also restricted by the time of the school year in which primary school headmasters asked to finish the Leader Behavior Questionnaire and the span of time they were in their presnt administrative positions. The one-year demand deliberated to respond the needs of headmasters to be able to provide large responses to their school. A choice must make about the time of year that is most good for for the headmaster to answer. They considered in July a less busy period for the headmaster, but that might not be the best time. Finally, this study was limited to pupils in class 3, 4, and 5 who took the Florida Comprehensive Assessment Test reading fro the 2006-2007 accademic years [63].

3.8 Discussion

Up to the present time, leadership, innovation, and leadership study have produced complex written work that prevent the comprehension and growth of proof-based application ecommendations. We aim to focus on visionary leadership and more specifically visionary leadership that is practiced in education. Visionary leadership practices in education can be presented from the awareness of individual principals and can also be designed based on a policy called piloting. We discuss our findings concerning our three main objectives below.

3.9 Research question 1: How do the researches define the principal's visionary leadership?

They defined that visionary leadership as crucial visionary leadership conduct and individual attributes that need to demonstrate by a head to own a constructive effect on an organization [43]. Successful heads have a sight. The heads like to opine in terms of the time to come and not just for the present time [64].

Visionary leadership is one that sets aims and goal for personal and group action, which does not explain who we are but what we desire or do [65]. Others said to stand apart from the others. Leadership behavior must inspire the sight and connection that sight among followers so that the institution proceed from good to better [66].

Visionary leadership points to the capability to make and connection views about desirable milieu that explain the present situation and promote loyalty to a better time to come.

Colton [65] portray visionary leaders as people who set aims and objectives for personal and group activities, which do not define what we are but what we ned or do.

Bredeson [23] states that in general understood, vision is the headmaster's capability to holistically see the now, reinterpret the school's mission to all its followers, and make use of imagination and perceptual skills to think beyond the accepted comprehending of what is practical and what which must be quckly applied at present to the time situation for suppotitius ideas and, preferably, future chance.

They defined visionary leadership as the capacity to make and eloquon a clear sight, giving sense and goal to the institution [31], [16], [41]. Visionary leaders expand their sight and combine it into a distributed sight with their followers. connecting sight is what authorize persons to do.

Scholars define visionary leadership differently. However, they agree that visionary leadership is leadership behavior that has personal characteristics and the ability to see holistically to create, articulate, interpret, imagine, and communicate, reinterpret school goals to followers to achieve school goals as a form of school anticipation of changes in the future.

3.10 *Research question 2:* Why does visionary leadership matter?

Principals with visionary characteristics who play moral majors refer to one's tendency to see schools and related projects and studying need not remain so that it might be the opposite and become better. This is the capability to know how things are and how they might not be in perfect terms, but in terms of what is feasible, given the specific school condition [67].

Barth [68] as well highlight the significance of sight in schooling. He debated that sight must regard three powerful reasons: (a) this is the only recipe for school reform that prayed seriously and continuously. (b) This rich insight hammered over years of operation, and (c) excitement working in the school is the result of studying difficult situations and then producing a plan or vision of its own to improve all the things that will achieve.

The statement of Barth [68] validity, content 56-item instrument inspected by some professor had proved statistically. The instruments applied to the pilot project. The statistics proved on Cronbach's formula to estimate the internal consistency coefficient, reliability coefficient, as predicted by Cronbach's alpha, and the coefficients [6].

Researchers sought to further refine and expand the visionary style to support the five dominant attributes of visionary leaders, two additional rotational factor analyzes were carried out. However, very few loading factors that reach criteria 0.25 or greater than this solution cannot be maintained. Therefore, leadership seems to fall into two categories, managerial and visionary, and further subdivisions of the visionary style are unwarranted [6].

The analysis of attitude instruments designed by the researchers described in this study shows that the ideal conceptualization of visionary leadership needs further exploration. Two factors supported researchers' speculation that visionary attributes are conceptually different from managerial qualities, although a practicing leader could demonstrate both. Further classification of items into classes corresponding to dominant visionary attributes did not support factor analysis. Some items are ambiguous and needed to reconsider. Further improvements needed to improve the accuracy of instrument measurements. However, the development of exploration and analysis shows that it has potential as a tool for the assessment of attitudes towards the conception of leadership labeled visionary.

Visionary leadership is important because location wqa vision is not just talking about new ways to say goal setting. Setting goals is a main responsibility for school heads now and it is the best path to pass forward-thinking, innovative preparation, and community

participation. That is a tough assigment but not the frigthening. Visionary leadership involves six stages. They are 1) a critical assessment of your past and present plans, your attaintment, and the need to reassess goals. 2) Identify trends and problems that arise and consider their possible impact on the plans and agendas. 3) Setting objectives to get based on the science and impression that gained from the past and your intentness of future needs. 4) Loyalty to sight. 5) The involvement of others in developing their vision and empowerment to act on that vision; application, and 6) Readiness to create the changes needed to develope possible for success [14].

The importance of visionary leadership is one of its characteristics that have strong personal beliefs and values. Principals that stand out are individuals whose commitments to their own beliefs are visible. Visionary principles are proactively aggressive in directing activities in their schools towards the realization of goals that are consistent with their personal beliefs. Educational goals that are personally important for principals are very important in school life because visionary principals are determined to realize their own goals [17], [18].

The contrasting visionary leadership of companies and schools is very contrasting. The principal need demanded to be more resilient in influencing his followers. They stated that some school principals agreed that it was important to do what others expected and disagreed with statements about achieving personal goals at school. However, visionary leaders have characters independent decision-making, setting firm goals, and actions that promote their vision. Reluctance to impose personal goals can illustrate the differences between public school leaders and company executives. Executives described as progressive when they regulate the character of the organization by imposing their own ideology. Perhaps the role of public services from education influences the principal to avoid unilateral allies. It is interesting to note that the principals surveyed believed strongly in the value of the shared school ideology that stood out but did not necessarily believe that it was their ideology. The data shows that the princes have some doubts about whether their values and beliefs should be the values and beliefs of the school's culture [5].

Furthermore, the findings of assessment of study in the visionary leadership of primary school leaders are at a high level. Posttest, overall, is at the highest level. In comparing the posttest of the visionary leadership of primary school leaders between the posttest, and follow-up, it found that the visionary leadership of primary school leaders during the follow-up period was higher than the posttest of primary school leaders of visionary leadership. Evaluative findings of followers contentmen in the visionary leadership in the leader expansion program in primary schools, as a whole, every aspect, are at a high level [5].

Although still in the category of rare, factual researchers have explored the effect of visionary school headmaster on pupil reading attainment [53]. Although researches have written about the principal's vision, the use of factual legalization to probe the connection between visionary leadership conduct, visionary leadership attribute and the growth of visionary culture and student reading performance has been restricted. Some studies, if any, have investigated the connection between principals' attribute and standardized test outcomes [54]. Although there are some advances in the field of study in school successfulness theory, experts have stated the limitation of researches that explore the connection between leadership including visionary leadership and pupils performance [55], [61]. The outcomes of this researchers are in line with the results of the latest research [69] on a qualitative methods type of case study, research stating that the character of students develops in the leadership of the school principal, namely religion, discipline and responsibility carried out in the midday and afternoon prayers in congregation, and Person in Charge.

This study, a statistically important correlation found between the visionary leadership conducts of primary school headmasters and reading in grades 4 and 5, but not in grade 3. The shortage of a relations between the primary school headmaster and reading in grade 3 can show that teaching and learning is a complex pahses. Several parts influence performance of student academic. School financial resources, teacher impression, collaboration, and quality of teaching can affect student accomplishment [57]. It is, however, the headmaster responsibility of principals to encourage cooperation, superviseeducator-teaching practices, reward educators for accomplishment, and encourage a sense of distributed responsibility [58].

Even headmasters' knowledge of programs of reading, together their capability to do as teaching and leaders of visionary, can enable them to affect school of reading programs and grow students' reading evaluation outcome [54]. Instructional leadership appers to generate a greater impact on student scores than transformational leadership [55]. Farther study needed to investigate the role of the headmaster's visionary leadership in a underpin milieu [62].

So with that, the authors conclude that visionary leadership is formed and forms a superior person, enlightens, and balances the organization towards and running towards the goals that have been mutually agreed upon. In short, visionary leadership is good and uplifting. Visionary leadership is bright and enlightening. Therefore, principals should do something good and enlightening properly as well as action because it enlightens the goal of the organization of funds to form a complete human being as a human being with its human values.

3.11 *Research question 3: How did the principals implement in schools?*

Visionary leaders guided the right vision as a guide in leading followers to work according to the leadng, including the capability to own innovations that direct to changes in the time to come. Therefore, each country up to the smallest area of the school will take their respective trajectories. The application of visionary leadership from one country to another is not the same, for example, Thailand and Indonesia.

Indonesia's government, nationally, obliged the schools from kindergarten to through college had vision, mission, and objectives of each organization. All institutional stakeholders must understand the organization's vision, mission, and objectives as a compass in carrying out the activities of running the organization to achieve maximum results effectively, and efficiently.

In this regard, leaders must have competence in expalining their vision in order others can explicitly comprehend. They must express their visions orally and practical conduct, and have competence in application their distinct description. The needs for visionary managers are (1) communication sight, which is caused by organizational knowing, institutional staff, and the milieu; (2) nonjudgmental who can reach the future; (3) competence in creating networks and teamwork, and expanding a culture for oustanding performance underpin; (4) competence in growing interactions with people by two-way communication, indetifying the importance of people and followers, and; (5) the growth of reliable personal conduct, for example, communicative explicitly, self-confidence, studying failure as somebody's impressions in growing chances, knowing staff's frail points and utilizing recommendations to grow their strong points [25]-[28].

The application of leadership of visionary in Thailand was through a pilot development project. The development of leadership of visionary administrators in primary schools includes: 1) background of history and importance of the agendas; 2) program objectives; 3) design and engineering in expansion; 4) program structure; 5) program content and material,

consisting of 3 Books, including Book l; vision formulation, Book; 2 vision communication, and Book 3; the vision of implementation.

Principals who had applied the visionary leadership style documented from the results of a study. This study has revealed the following findings. *First*, principals in state junior high schools in Lampung Province identified that they showed all seven domains of leadership of visionary style: stimulating intellectuals, supporting, adapting, developing organizations, taking risks, building images, and empowering. *Second, the* findings show that all major visionary leadership domains positively and importantly correlated. The highest relationship is between building an image and adapting, followed by the relationship between supporting and the least relationship is between empowering and intellectually stimulating. *Third,* these findings indicate that there are no statistically important differences in the main visionary leadership scores for men and women. This finding shows that their followers accepted visionary leaders. *Fourth, the* findings indicate that there is no statistically important difference in the principal's leadership of visionary out comes for certified and uncertified teachers in understanding the principal's leadership of visionary.

The author hereby concludes that the implementation of visionary leadership throughout each country tailored to such characteristics as ideological, political, economic, social, and cultural respectively aspects. The implementation process in a country can certainly be emulated by making sufficient adjustments. One thing that encourages findings from Indonesia is that visionary leadership shows excellence including there is no statistically important difference in the main visionary leadership outcome for men and women and no statistically important difference in visionary principals' leadership outcome for certified and non-certified teachers certified in understanding the visionary leadership of the principal. Followers are no longer constrained by income differences but followers are more motivated by visions that can be clearly understood and that is their dream too.

4 Conclusions

The study aimed to examine how visionary leadership has been practiced with all its dynamics. The literature reviews from selected articles are used to. In this study, the principal's leadership is examined from the domain of visionary leadership studies. The journal articles which are reviewed are from which have functioned to become as major outlets for visionary leadership research by principals and in a wider area within the scope of education to gain awareness of the increasing need for visionary leader importance in some of the research findings in the field. The authors concluded that (1) visionary leadership is leadership behavior that has personal characteristics and the ability to see holistically to create, articulate, interpret, imagine, and communicate, reinterpret school goals to followers to achieve school goals as a form of school anticipation of changes in the future. (2) visionary leadership is bright and enlightening, therefore something good and enlightening should be done properly as well as action because it enlightens towards the goal of the organization of funds to form a complete human being as a human being with its human values, and (3) visionary leadership throughout each country tailored to such characteristics as ideological, political, economic, social, and cultural respectively aspects. The implementation process in a country can certainly be emulated by making sufficient adjustments.

4.1 Limitations

This study is limited to literature review; it does not include field research (qualitative and quantitative method). The strength of this research is that this study can add to the number of researches and particularly knowledge concerning visionary leadership. The limitation of this study expects to trigger researchers to conduct further research.

4.2 Practical Implications

Although there are limitations noted, this is something not trivial, we show some of the implications synthesis while for administrator. we suggest two important discovery in this regard that stem that visionary leadership is a lantern for instructional leadership seems to yield a greater effect on student reading outcomes [55]. Ylimaki states that further study needed to explore the visionary leadership role of principals in a encouraging environment [70]. Second, the principal visionary leadership capable of guiding the stakeholders' interests formulates their dreams for the future of the students by way of humanizing an independent stakeholder to contribute to the humanitarian values true and that all of them can be applied to the red carpet for the leadership deploying transformational.

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Learning Cycle for Literacy Financial of Early Childhood Education

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Abstract. Financial literacy can be cultivated as early as possible for children, especially through early childhood education. Financial literacy is still rarely applied to early childhood. Some are reluctant to involve children about finances because they are too young. This happens because the time is not for children to get stimulated literacy. Meanwhile, literacy will be needed by children in their daily life. Fostering financial literacy in early childhood education requires an appropriate learning model, one of which is by using a learning cycle learning model consisting of exploration, planning, production, communication, and reflection. Based on this, the purpose of this article is to analyze, reveal, and provide information about what financial literacy early childhood should have and how the learning cycle can foster financial literacy in early childhood. This article is expected to add new knowledge for educators in implementing financial literacy in early childhood education.

Keywords: Learning cycle, Literacy financial, Early childhood

1 Introduction

Every child is born in a pure state (fitrah). Children are individuals who experience a process of rapid development and are fundamental to the next life. The growth and development of the natural potential of every child to achieve harmony and perfection in all its aspects can be through education, which is a process of transformation and internalization of knowledge, values, and abilities in children [1]-[3]. One of them is through the early childhood education, where according to Mursid (2015) Early childhood education is an effort to provide stimulation, guidance, care, and provision of learning activities that will produce children's abilities and skills [4].

Education cannot be separated from learning, because both of them are an inseparable unit [5]. To provide stimulation to early childhood education, proper learning is needed. The learning process can be teacher-centered and student-centered. One of student-centered learning is learning cycle learning. This learning cycle is a learning cycle, where each phase makes children play an active role in mastering competencies in the learning objectives to be achieved. [6],[7]. Learning cycles according to Pebruanto (2007) consist of exploring, planning, producing, communicating, and reflecting [8]. The National Curriculum and Entrepreneurship (Ciputra Way K12) which adopts a learning cycle learning model, in which children are equipped to create entrepreneurial projects based on their talents and interests, with a creative learning approach to improve children's life skills and self-confidence and children are trained to have a basis for entrepreneurial thinking to produce something new.

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Through early childhood education, various kinds of literacy are provided. According to Kementerian Pendidikan dan Kebudayan (2017), there are six basic literacies, namely, language literacy, numeracy literacy, scientific literacy, digital literacy, financial literacy, and cultural literacy and citizenship [9].

When parents often find children aged 5-6 years who are being invited by their parents to go to the mall, the child asks for toys and when the parents do not buy them the child tends to cry and even throw tantrums. This is the same when it was found in an early childhood education institution when children came home from school asking to buy toys, even though there were already many toys at home. In general, this illustrates how children can not distinguish between their needs and wants. This is an indicator of financial literacy. This will have an impact on financial decision making as an adult and have an adverse effect on personal finances and ultimately become global. Financial literacy is a core life skill for participating in modern society. Children grow up in an increasingly complex world where they ultimately need to take over their own financial future.

The existence of an appropriate learning process, the expected goals will be achieved, so the researchers are interested in knowing what financial literacy early childhood should have and how the learning cycle fosters early childhood financial literacy.

2 Literature Review

Literacy is the ability to read and then develop into reading and writing skills [10]. However, literacy is a series of abilities to manage various information from various aspects of life [11],[12]. According to the Ministry of Education and Culture (2017), there are six basic literacies, namely literacy, numeracy, scientific literacy, financial literacy, digital literacy, and cultural literacy and citizenship [9]. In general, literacy is no longer reading and writing but has a broader meaning consisting of a good understanding of various aspects of life. There are six basic literacies, one of which is financial literacy.

Financial literacy is a fairly new thing in the world of education, even though financial literacy has actually existed since August 23, 1787, at which time John Adams stated the need for financial literacy to Thomas Jefferson by letter [13]. Financial literacy according to Hung*et al.* is a specific form of knowledge, the ability or skills to apply that knowledge, perceived knowledge, good financial behavior, and even financial experience [14]. Meanwhile, according to the Ministry, according to Tanuwidjaja (2008) literacy is a basic skill to form a mindset so as to form a character to make a decision [15]. Education and Culture (2017) financial literacy is the knowledge and skills to apply the knowledge that has been gained and the skills acquired in order to make effective decisions in a financial context to improve financial well-being, both individually and socially, and to participate in the community [9]. Thus financial literacy is knowledge about finance wisely in acting and being responsible in taking financial risks.

The scope of financial literacy according to the Kementerian Pendidikan dan Kebudayaan (2017) is as follows [9]:

Table 1. The scope of financial literacy

Content	Explanation
Definition of economic transactions and various types of practice	Definition of medium of exchange, goods and services
Introduction of economic resources (earnings)	Human Resources (HR). Human resources for livelihood / profession to fulfill basic needs.
Introduction of the concept of spending as meeting basic needs	Priority scale, namely primary, secondary and tertiary needs
Understand the concept of saving in traditional and modern terminology	Save
Introduction to the concept of sharing based on local wisdom and religious teachings	Charity
Introducing the concept of bad practice and financial crime	Corruption

Finance in early childhood can be introduced in the form of concepts about money, saving, financial institutions, and needs and desires. Meanwhile in Ariyani's [16] research at TK Khalifah Purwokerto by integrating monotheism and financial literacy, it covers five scopes, namely the introduction of transactions (introducing nominal money in market-market role-playing activities), the introduction of economic resources (introducing professions and working with parents to choosing homework), introduction to the concept of shopping (in activities not clearly defined but the teacher teaches the needs and desires as well as the introduction of the daily lifestyle), introduction to the concept of saving (habituation of saving activities), and introduction of prohibited practices in finance (activities telling stories about attitudes honest). Basic theory of financial literacy in early childhood, namely cognitive learning theory by Piaget, Jerome Bruner, and Albert Bandura, and factors that affect early childhood finances, one of which is the child's own economic experience. As for financial literacy in several countries, according to APEC (2014) financial literacy in Australia, where the knowledge that has been obtained by children is so that children are confident and make responsible decisions, in China financial literacy in early childhood is introduced about the concept, use, savings, and money creation, while in Mexico financial literacy in early childhood is introduced through interactive digital games the main goal is to achive basic financial literacy, as well as to develop positive habits and attitudes towards financial institutions.

Learning cycle is a learning model based on constructivism, where children build their knowledge through their involvement in the learning process so that the learning process is student centered [17],[18],[4]. According to Ali (1993) learning cycle is a learning process in which there are stages or series of activities carried out appropriately and regularly [19]. According to Pebruanto (2007), the learning cycle is divided into five stages, namely exploring, planning, producing, communicating, and reflecting. Thus, financial literacy in early childhood can be in the form of knowledge and behavior [8].

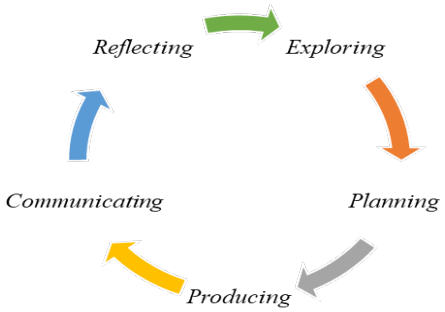

Fig 1. Learning Cycles [8]

2.1 Exploring

Children are allowed to build their knowledge based on their experiences through their curiosity with questions and facilitated observations [8],[20].

2.2 Planning

This stage is where children pour ideas and ideas that are under the information they have obtained into planning and involve the children to analyze the exploring that has been carried out [21]. This planning stage is important to attract children's interest and stimulate further activities [22].

2.3 Producing

This stage is where the children's ideas, concepts, skills are expressed in the form of a concrete work that can be observed by others [23].

2.4 Communicating

This stage, where the child communicates the results of his work to other people. Children try to communicate what they have done and children can build social interactions with the surrounding environment (friends, teachers, and parents).

2.5 Reflecting

This stage is an evaluation stage, where the child identifies what has been achieved as well as the obstacles and obstacles he has encountered as an improvement in the next project [23].

Based on Putri's research (2018), the learning cycle with the stages of exploration, planning, doing, communicating, and reflecting becomes a facility to develop creative character, caring, curiosity, enthusiasm, and responsibility [24]. Meanwhile, according to Newton (2006) the learning cycle will reflect the experiences that have been obtained constructively [25]. Meanwhile, according to Sherraden, Johnson, Guo, and Elliott children will develop the understanding that has been obtained through successive stages of development [26].

3 Method

The approach used in this study uses a qualitative approach that is library research. Library research aims to collect, process, and conclude data from theoretical studies, references, and scientific studies to find out what financial literacy early childhood should have and how the learning cycle can foster financial literacy in early childhood [27],[28]. The steps for library research activities can be carried out as follows: 1) Selection of topics, at this stage the topics selected are based on the researcher's interest in financial literacy for early childhood education literacy and the possibility of research success, 2) Information exploration, at this stage the source of information is taken from research data collected by analyzing theories based on journals, books, theses, and other research results regarding the learning cycle for early childhood financial literacy, 3) Determining the focus of research, the focus of research that will be examined in this research is the learning cycle for financial literacy for early childhood education, 4) Collecting data sources, at this stage, the data sources are collected by documenting, namely collecting data or documents that have previously been analyzed. 5) Preparation of data presentation, at this stage content analysis, is carried out from each data source that has been collected, and 6) Preparation of reports, Compiling reports with predetermined systematics [29].

4 Discussion

Financial literacy that can be possessed by early childhood, including children being able to know the means of exchange for goods and services, children can get to know various types of professions, know between needs and desires, save, share with their teachers and other people, and train children's honesty not to take action corruption.

Learning activities in early childhood using thematic, where children will actively seek, explore, and find concepts [30]. The learning cycle is a learning cycle in which one theme is raised, for example the main theme is the environment and the sub-theme of public places, where in the exploring stage, children are introduced directly to public places such as traditional markets or supermarkets directly, at this stage the curiosity they have by children will bring up ideas in children in accordance with the goals and targets that have been set, children will know about the price of goods, profession, and needs and desires. Furthermore, in the planning stage, where from several sources that have been obtained by the child so that the child gets an idea at the exploring stage, at this stage the idea is put into a complete plan, for example the child will plan to sell the product with how it is packaged, how much, and how much the price it will sell. Next is the production stage, at this stage the ideas that have been poured into planning are then poured into a work, after what the children have planned, they can be poured into market day activities, the work or goods that the children make can be bought and sold in this activity. The fourth stage is the communication stage, the child communicates the results of his work to others both to teachers, parents, and friends to be appreciated.When in market day activities the child's work will be appreciated by means of the buying and selling process and when buying and selling activities the child will be trained honesty to deliver goods at a predetermined price, or to give back to the buyer. Production and communication stages can be carried out simultaneously. Next is the fifth stage, namely the reflection stage, where after all the stages have been passed, the child will reflect on what has been achieved, how he feels, and what are his shortcomings. Taap reflection will make a fixing material for the future.

5 Conclusion

Learning cycle with five stages, namely exploring, planning, producing, communicating and reflecting. Where when exploring the teacher can choose a theme to bring up ideas or ideas in children, at this stage the introduction of economic resources, introduction to the concept of shopping and sharing will be obtained when children explore a place, for example a market or supermarket. Furthermore, in the planning stage where the child's ideas and ideas will be poured into the planning, the child will recognize the means of exchange when determining what goods to sell and at what price. The producing stage of children's planning will be poured into a work, where children will recognize economic transactions such as works that children have made will be exchanged for money and at the communicating stage the work will be communicated so that they will get an award where at this stage the child will recognize the concept of bad practice and financial crimes such as children will give goods with an amount of money received with the help of the teacher in stating the nominal money and return the money when the money is more. The last stage is reflection, where children will reflect on what they have achieved in the stages that have been passed or have not yet been achieved

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Implementation Of Blended Learning Model In Pandemi Era Covid- 19 In South Sulawesi Province

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Abstract. The Covid-19 Pandemic era has an impact on the learning process in schools where the learning process must apply health protocols, so an appropriate learning strategy is needed, namely, Blended Learning. Blended learning is a strategy that combines offline and online learning to minimize the number of Covid-19 transmissions. This study aims to describe the implementation of the Covid-19 era blended learning strategy in South Sulawesi Province. This research was conducted using a survey method by taking 62 elementary school teachers as respondents—data collection using an online question-based questionnaire. The data analysis technique used in this research is descriptive analysis. Based on the results of a survey conducted by researchers, it shows that the application of blended learning in South Sulawesi is still ineffective in terms of (1) The level of educators' understanding of the blended learning strategy has only reached 40%. (2) Implementation encountered many obstacles, namely the internet network and the availability of quota, which reached 88%. (3) Educators hope that they will be provided with facilities such as quotas and adequate systems as well as training on the application of the blended learning strategy in elementary schools.

Keywords: Blended Learning, Implementation, Covid-19.

1. Introduction

Currently, The world is facing the Covid-19 pandemic, which has an impact on all activities, one of which is in the education sector in Indonesia, including the affected South Sulawesi province, which makes us unable to meet face to face in class and deliver lesson material directly, so we have to implement distance learning (Online) style. In the education system in the new normal era in Indonesia, knowledge will be implemented based on the guidelines for the implementation of learning in the 2020/2021 academic year during the COVID-19 pandemic, by prioritizing health protocols [1]. Based on this decision, an appropriate learning strategy is needed, namely, Blended Learning. Blended learning is a strategy that combines offline and online knowledge to minimize the number of Covid-19 transmissions. Over the past two decades, higher education institutions have increasingly adopted blended learning for various reasons and the pedagogical concept configures itself as the new normal in higher education [2].

Blended learning is a teaching and learning strategy that aims to achieve learning objectives by combining class-based/face-to-face learning with technology and information-based education conducted online[3]. With blended learning facilities, students can learn flexibility whenever and wherever they are. Besides that, students can also interact easily with their teachers and get sources of information and materials and teaching media both in class and

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outside the classroom through the help of information technology online (online) quickly. This is in line with Jowsey's research results showing that blended learning can positively affect and impact student achievement, primarily when used to manage and support distance education [4]. Li also supports this opinion. Blended learning can effectively increase the positive and emotional knowledge of students [5]. Blended learning makes it easy for educators to do learning because, in the application of blended learning, educators can combine various methods, models, and strategies in learning so that learning materials and objectives can be adequately conveyed and effectively[6]. Therefore, blended learning can be used as a teaching method in education at this time of the Covid-19 pandemic.

In the era of the Covid-19 pandemic, we are required to implement the Blended Learning strategy. Blended learning is a real opportunity to create learning experiences in the Covid-19 pandemic era that can provide the right education at the right time and in the right place for each individual, not only at work but at school, university, and even at home. It can be truly universal, crossing global boundaries and uniting groups of learners across different cultures and time zones. In this context, blended learning could be one of the most significant developments of the 21st century.

There are still several obstacles, including inadequate network problems, internet quota, not having devices (cellphones, laptops, etc.), and there are still some students who don't know how to use a useful learning application. In the aspect of operating blended learning for users, there are still some obstacles, such as there are still teachers and students who have not been able to function blended learning properly [7].

Based on the constraints found, it is necessary to evaluate the implementation of blended learning. The evaluation activity on the performance of blended learning in the province of South Sulawesi at several elementary schools aims to collect data and then analyze the data so that the results of the analysis can be used for consideration of deciding on the object being evaluated.

2. Research Methods

This research was conducted using a survey method by taking 59 teachers and three primary school principals in the regency/city of South Sulawesi Province as respondents. This data collection uses a questionnaire based on the google form. This data collection was carried out in July 2020. The data analysis technique used in this study was descriptive analysis. The following is the questionnaire instrument for data collection:

Table 1. Questionnaire instrument for data collection:.

No	Question	Coise
1	As Educators and Education Personnel in Elementary Schools, Do You Know the Blended Learning Model?	a. No b. Yes
2	As Educators and Education Personnel in Elementary Schools, What is the Blended Learning Model?	
3	As Educators and Education Personnel in Elementary Schools, Do you have any obstacles in applying the Blended Learning Model?	a. No b. Yes
4	What are your obstacles in applying the Blended Learning Model?	a. Quota b. Internet Network

		c. No Handphone d. Other….
5	If you are constrained by implementing the Blended Learning Model, do you need a solution related to these constraints?	a. No b. Yes
6	What solutions do you need, regarding the Blended Learning Model Constraints / problems?	

3. Results and Discussion

The implementation of the Blended Learning strategy during the Covid-19 pandemic at elementary schools in South Sulawesi consists of: (1) Knowledge of Blended Learning, (2) obstacles in implementing the Blended Learning Strategy (3) The expected solution in the Blended Learning Strategy. Based on the results of the survey that was conducted, data analysis was then carried out. The results of data analysis can be described as follows:

3.1. Knowledge Of Blended Learning

As an Elementary School Educator, do you know the blended learning strategy? Based on the results of this survey, data was found: 95% know the blended learning strategy, and 5% do not know the blended learning strategy. Then these results were confirmed again in relation to the understanding of blended learning. By using an assessment scale, the following data were obtained:

a) 40% Got it
b) 44% Lack of Understanding
c) 16% Don't Understand

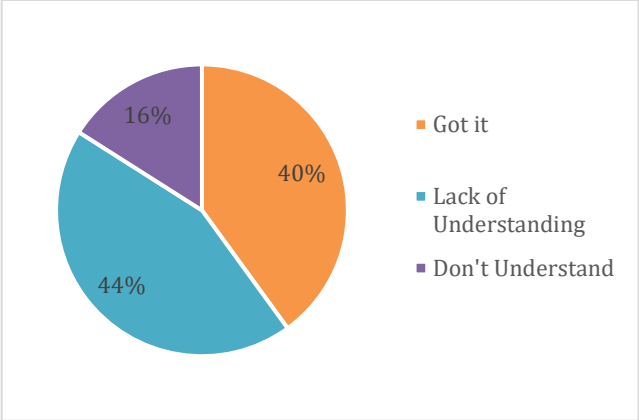

Fig. 1. Knowledge of Blended Learning.

This shows that 40% understand the application of the blended learning strategy, 44% do not understand, and 16% do not understand the application of the blended learning strategy. The teacher's understanding of blended learning is still lacking; the dominant teacher's answer

indicates this is not appropriate in defining blended learning as mixed learning but rather online learning.

3.2. Constraints in implementing the Blended Learning Strategy

As an Educator in an Elementary School, Do you have any obstacles in implementing the blended learning strategy? Based on the results of this survey, it was found that data: 90% had problems, and 30% had no issues in implementing blended learning. Then these results were confirmed again concerning what obstacles were faced in the implementation of blended learning, using a rating scale, obtained data:

a) 43% Quota
b) 45 % Internet Network
c) 10% No Handphone
d) 2% Don't understand IT

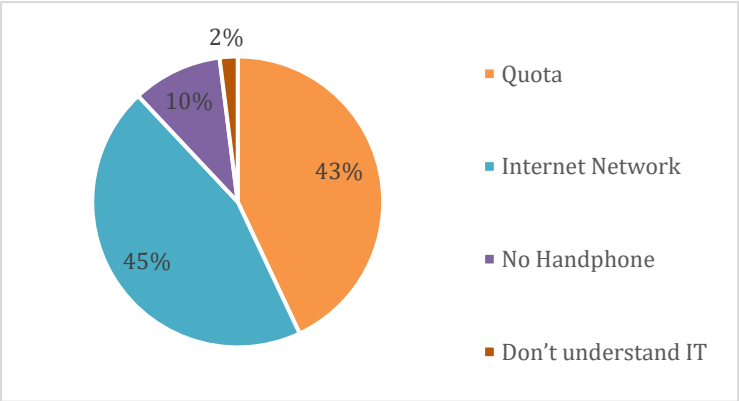

Fig. 2. Constraints in implementing the Blended Learning Strategy.

The figure indicates that the application of blended learning still faces many obstacles, including the most significant obstruction being 45% of the internet network, 43% of quota facilities, 10% do not have cellphones, and 2% do not understand how to implement Information and Technology Science (IT).

3.3. The expected solution in the Blended Learning Strategy

If you are constrained by implementing the blended learning strategy, do you need solutions related to these constraints? Based on the results of this survey, data was found: 97% need a solution, and 3% do not need a solution in applying blended learning. Then these results were confirmed again concerning the desired resolution in the implementation of blended learning. By using a rating scale, the data obtained:

a) 52% Facilities
b) 26% Training

c) 22% There is no solution

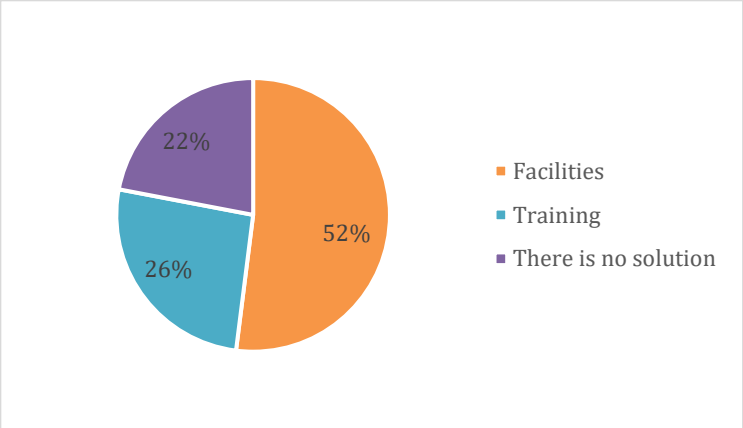

Fig. 3. The solution expected in implementing the Blended Learning Strategy

This figure indicates that the application of blended learning still faces many obstacles, including the most significant obstruction being 45% of the internet network, 43% of quota facilities, 10% do not have cellphones, and 2% do not understand how to implement Technology (IT) and information.

4. Conclusion

Teachers' understanding of blended learning is still lacking, and the application of blended learning still faces many obstacles, including the biggest obstacle is the quota facility and internet network. Teachers hope that they will be provided with facilities such as quotas and adequate systems as well as given training on how to implement blended learning.

Acknowledgments. We convey to all those who have contributed to our research with the topic of the implementation of the blended learning strategy in the Covid-19 pandemic era in South Sulawesi province so that the results of this study can be used as information for educators and education personnel and the community.

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The Effect of Blended Learning Web Course Type With WhatsApp Media On The Critical Thinking Ability Of Elementary

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Abstract. This study aims to determine the effect of Blended Learning Course Web type with WhatsApp Media on The Critical Thinking Ability of Elementary Students. The study was conducted to obtain an overview of critical thinking skills in of Civic Education. The subjects of this study were 39 students of Class VI. The type of this research is a pre-experimental study with One-Shot Case Study design. The technique of Data analysis used statistical tests with One Sample t-test at the 95% level of trust. The results showed that the value of tcount> ttable is 4,970> 2,024, and the value of sig. (2-tailed) <0.05, it means that there is an influence of Blended Learning on the Web Course type with WhatsApp Media on the Creative Thinking ability of Elementary Students.

Keywords: Blended Learning, Critical Thinking, Whatsapp.

1 Introduction

Knowledge and technology is something that cannot be separated from human life. Technology is developing so rapidly that it causes the information which is obtained can be received quickly. This development directly affects various aspects of human life, such as politics, economic culture and even education [1]. Education is one of the sectors that cannot be separated from the development of science and technology. Education is the sector that is most responsible for responding to the challenges of the time. In this case, the government answers the challenge has been stated in the attachment of Permendikbud No 21 Tahun 2016 about Basic and secondary Education Content Standards describes the scope of skill competencies, which include creative thinking, productive, critical, independent, collaborative thinking and communication in clear language, systematic, logical, and critical [2].

Related to the demand of curriculum, critical thinking skills are needed in the midst of knowledge and technology development. Critical thinking is a method of thinking which is very important for someone to of critical thinking skill of students. The educator who don't teach their students to think at a higher level usually only apply the conventional learning model [3]. From the statement, it is clearly explained that learning method which is applied in class can influence the development of critical thinking of students. Suana and friend said that if the teacher applied conventional method, the students hard to obtain higher thinking skills level [4]. From the explanation above, the teacher should do a variety of innovative learning one of them is by applying an interesting and fun learning method to improve critical thinking skills students.

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The learning method that is used by teacher is one of factors which is support ability of students thinking [4]. Especially in the midst development of advanced age, science and technology progress should be used in the learning process both online and offline, or by combining online and conventional (face to face) learning method so that the learning process can be done anywhere without being obstructed by distance or time [5]. One of the methods that can be applied is blended learning, the blended learning method is effective at fostering critical thinking skills and independence of students [6]. A blended learning method which is carried out through e-learning without combining conventional learning is called the web course type blended learning method [7]. This web course type blended learning method can be used by teachers when the learning process not allow face to face so that the learning can be carried out by e-learning [8]. Thinking is a process that is carried out systematically in order to find a truth to build confidence gained in a factual and realistic [9]. Critical thinking is a way of thinking that becomes a person's intellectual ability to solve problems in the right way based on proper knowledge [10]. Therefore, we can conclude that critical thinking is a mindset which is carried out based on the rules derived from the fact. The indicators of critical thinking skills refer to Ennis [11] those are: (1)Focus, (2) Reason, (3) Inference, (4) Situation, (5) Clarity, and (6) Overview.

Blended learning is a learning method that can be used to combine learning process conventionally by online-based learning. The advantage of this method is the learning process is not only done by face to face in the classroom but also learning process can be done outside classroom without being tied to the distance and time by taking advantage the technology [12]. Blended learning is a learning process that is carried out by combining face to face learning process with e-learning method , it has to use media and it is accompanied by theories that support the learning process [13]. There are three basic stages in implementing blended learning which refers to ITC learning that is expressed by Grant Ramsay [14] those are : (1) seeking of information, it is by seeking information from various available sources both online or offline that are relevant, valid, content reliability and academic clarity. In this case the teacher is a facilitator for facilitating the students. (2) Acquisition of information, individually or in groups, the students cooperate to comprehend and then interpret so they can communicate base on available source. (3) And synthesizing of knowledge, that is constructing knowledge through assimilation process and accommodation start from the results of analysis,discussion, and formulation of conclusion from obtaining information. Haughey [15] suggest there are three methods in the development of studying blended learning those are (1) Web course method, this method is a learning method using the internet for educational purpose, where the students and the teacher are completely separated by distance and face to face process are not carried out in this learning. All learning activity is completely carried out via internet. (2) The web centric course method, the learning process is carried by combining between offline and online learning. Some of the material is delivered via face to face and some of them via internet, therefore the learning process is complemented each other. And (3) Web enhanced method is a learning method by taking advantage of internet for improving the quality of studying in the class, therefore in this case the teacher are required to understand the internet for learning needs as a tool for searching information and convey the information which is obtained via the web [16].

Some studies have stated that application of blended learning can improve critical thinking skills. blended learning method via WhatsApp can improve critical thinking and problem solving skills [4]. WhatsApp is one of effective media that is used to foster critical thinking attitude to elementary students [17]. The results showed that the average college student learning interest before blended learning was 66.70. While the results of the average score of interest in college student after being given learning by utilizing blended learning, which is 85.48. Thus,

there is an increased interest in learning with an average of 18.78 [18]. However, the study of blended learning web course type via WhatsApp is still relatively rare used in elementary school especially in Civic Education subject. Therefore the aim of this study is for determining the effect of study method blended learning web course type by using WhatsApp media with the critical thinking ability of elementary students on the Civic Education subject in class.

2 Methodology

The approach used in this research is quantitative research with the type of pre-experimental design One-Shot Case Study to determine students' critical thinking skills in the Citizenship Education subject. The One-Shote Case Study design is a design in which there is no control group in the study, students are only given treatment after that it is observed by giving posttest questions. The independent variable in the study is the blended learning model with the web course type with Whatsaap media, while the dependent variable is the student's critical thinking ability. The instrument used in the research was critical thinking test questions. The research subjects were students of class VI-B SDN Kencana Indah I, Rancaekek District, Bandung Regency with 39 students. The research data were obtained from the results of discussions through WhatsApp and critical thinking questions given to students. The hypothesis of this research is the critical thinking ability of grade IV students who learn with the blended learning model Web Course type> 80.The data analysis technique used is in the form of the One sample t-test to determine the effect of the Web Course type blended learning model with whatsapp media on thinking skills. critical students.

3 Result and Discussion

The learning method which is developed in this study is a blended learning method with a web course type, where all about learning is only carried out online by using Whatsapp media for the Civic Education subject of elementary. Stages in implementing blended learning (1) seeking of information, In this study, because of the study subjects were elementary students, the materials were provided by the teacher were sending learning videos as studied material. The media which are used in this learning process is whatsapp group. (2) Acquisition of information, in group or individually the students cooperates to understand and then interpret so they can re communicate based on available sources. In this study, the materials were provided by the teacher because the target of study is elementary students. The teacher provided video that the students should been learned in whatsapp group and then individually the students were given a space to discuss and they should give their opinion via whatsapp group. (3) Synthesizing of knowledge, Synthesizing of knowledge, that is constructing knowledge by assimilation process and accommodation opposite from analysis result, discussion and formulation of conclusion from obtaining information. At this stage, the students sent discussion result and conclusion from information which obtained by students, here the students were given questions according to the indicators of critical thinking which related to the video has been given. After that, the students wrote the answers from the questions which is sent via whatsapp.

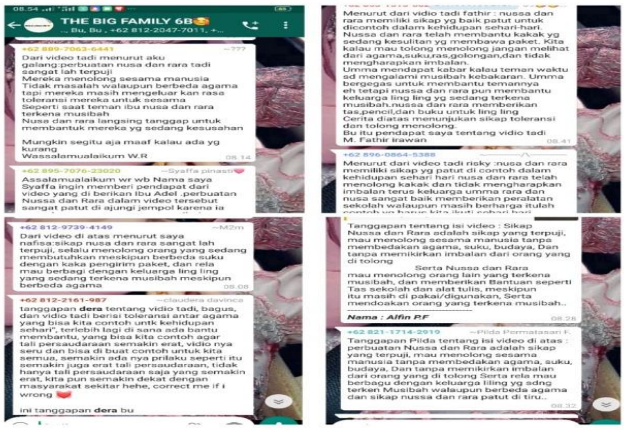

Fig 2. Discussion via whatsapp

The discussion result showed that after applied blended learning method web course type, with whatsapp media, there is an influence critical thinking skills as an indicator which is suggested by Ennis. The instrument of the critical thinking skills kind of testing posttes question which showed that blended learning method web course type of media influenced to the student's critical thinking skills. This was indicated by acquisition of the student's average score that is bigger than before using blended learning method. The result of the student's critical thinking skills test is presented in table 1.

Table 1. Critical Thinking Skills

Critical thinking skills				
Kind of test	**Minimum score**	**Maximum score**	**average**	**Standard deviation**
Post Tes	72	100	85,33	6,702

3.1 Normality Testing

Normality test is used to determine whether the data are distributed or not. The normality is used as required for testing One Sample t-test for testing a distributed data is normal or not, it will be carried out at the end of learning or at the end of the test. That is when the treatment is done by giving posttes question. The results of normality test are presented in table 2.

Table 2. Normality Test

	Statistik	**Df**	**Sig**	**Ket.**
Blended Learning	90	39	0,082	Normal

Bases on the calculation result of normality tests by using SPSS version 22 as shown in the table above, it can be concluded that the posttes question are normally distributed and can be continued for testing One Sample t-Test, because the requirement for testing One sample t-test is the data must be normally distributed.

3.2 Normality Testing

The data which were obtained from the study result. They were analyzed by using data analysis of hypothesis testing one sample t test. The result of the analysis is presented on the table bellow

Table 3. One Sampel t-test

	Test Value = 80					
	T	Df	Sig (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Blended learning	4.970	38	000	5.333	3.16	7.51

Based on the calculation result by using SPSS version 22, the result of analysis one sample t-tes showed Sig=0,000 it means the value Sig,0,05 it means H_1 accepted. The results of the study are consistent with the study [19] blended learning method can increase student motivation and learning achievement in thematic learning, it was shown that there was an average increase in learning motivation by 56,50 and the learning achievement by 57,00. Similar to the study result [20] who said that "the findings indicate that blended learning was more effective than traditional learning. That is, students in the experimental group not only performed those in the control group in oral proficiency, but they also exhibited higher learning motivation'. We can conclude from the study that there were an effect of blended learning web course type, with whatsapp media of the critical thinking skills of grade VI elementary students. This is shown by the result of analysis t test (One sample t-tes) at the 95% confidence level, it is obtained $t_{hitung} > t_{tabel}$ is 4.970>2,024 therefofre H_o is rejected and H_1 is accepted.

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Development of Students' Worksheet Based on Quantum Learning Model to Improve Students' Creative Thinking Ability of 4th Grade Elementary School

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Abstract. This study aims to develop a student‟s worksheet based on Quantum Learning that is feasible, interesting, easy, useful and effective to improve the ability of creative thinking students in 4th grade of Elementary School. The type of research and development that refers to the theory Borg & Gall. This research was implemented in grade IV of elementary school number 11 Metro Pusat, Indonesia. The subject were 54 students divided into experiment class (27) and control class (27) with purposive sampling technique. The results showed that student‟s worksheet based on Quantum Learning is feasible, interesting, easy, useful and effective.

Keywords: Students Worksheet, Quantum Learning, Creative Thinking.

1 Introduction

The demands of the 4.0 era industrial revolution in the 21st century need to be faced wisely, because the challenge is getting tougher. This challenge is addressed with various abilities that need to be mastered to be able to compete in the era of revolution 4.0. One of them is the ability to think creatively. In line with this, National Education Association states that one of the 21st century skills is Learning and Innovation Skills which consists of 4 aspects, namely Critical thinking, Communication, Collaboration, and Creativity [1].

Having the ability to think creatively allows students to build idea or new notion through mental activities. This is in line with the opinion of Suryadi and Herman, creative thinking skill is cognitive skill to generate and develop new ideas, new ideas as a development of previously ideas and divergent problem solving skills (from various points of view) [2].

To support the success of educators in delivering lesson concepts, an educator must prepare several components of teaching materials; one of them is the student‟s worksheet. According to Prastowo, student‟s worksheet is a printed teaching material in the form of paper sheets containing material, summaries, and instructions for implementing learning tasks that must be done by students which refer to the basic competence that must be achieved [3]. Student„s worksheet loads activities that contain the stages that must be done by students in finding concepts. Student‟s worksheet is a form of teaching material that is often used by educators in delivering learning topics. Student‟s worksheet it self contains material or questions or assignments to be completed by students.

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Factor that can support the development of students' creative thinking abilities is to choose the right learning strategy in it, including the selection of learning models. One of them is the Quantum Learning model which can be integrated with student‟s worksheet teaching materials. Research conducted by Zeybek shows that the quantum learning model has helped students to improve learning achievement skills, has positively influenced students' attitudes towards learning, has increased their level of readiness and made learning more enjoyable because it regulates the learning environment to solve various senses of learning [4]. Furthermore, Acat's research shows that quantum learning not only contributes to improving student achievement, but also develops students' attitudes [5]. For this reason, primary schools should be encouraged to use quantum learning models. Then Fajrin *et al*. conducted research that developed quantum learning-based textbooks [6]. The results of the student questionnaire obtained from the average results of all components showed a percentage of 70.3% responded positively and 20.7% did not respond positively. Meanwhile, based on the product validation test from several experts, it shows that the product is valid and feasible when used in the learning process.

There are 6 research results related to the variables in this study. Research conducted by Anwar *et al*. examined A Comparison of Creative Thinking Abilities of High and Low Achievers Secondary School Students [7]. The results showed that there was no difference between high achievers and low achievers in terms of creative thinking abilities. However, girls and students who came from urban areas found better in their creative thinking. Arvyati's research, creative thinking is also defined as the ability to think about someone in developing ideas or notions that are smooth (fluent), flexible (flexible), original (originality) and elaborative (complicated) [8]. Creative thinking is a way of thinking that allows not only one answer to an issue. In the creative learning process, different thinking is used (the thought process controls every aspect of the direction and produces many types of alternative solutions).

Research conducted by Fajrin *et al*., this research developed a quantum learning-based textbook using the AMBAK technique using a 4-D development model [6]. The results of the student questionnaire obtained from the average results of all components showed a percentage of 70.3% responded positively and 20.7% did not respond positively. Meanwhile, based on the product validation test from several experts, it shows that the product is valid and feasible when used in the learning process. Meanwhile according to Zeybek, this model occurs of six stages that are Enroll, Experience, Label, Demonstrate, Review and Celebrate [4]. This formula is known as TANDUR, namely Tumbuhkan, Alami, Namai, Demonstrasikan, Ulangi dan Rayakan.

Furthermore, research conducted by Utami with the results of the study showed that learning geography using worksheets received a very good response from students [9]. This is shown by active students to express opinions, ask questions, discuss in groups. Data, pictures and maps on worksheets also attract the attention of students in learning geography. Meanwhile, research conducted by Lee with research results revealed that worksheets can be useful in terms of academic achievement, as a support for textbooks; worksheets can be used to add information for certain classes [10]. In addition, worksheets can be used by students to construct knowledge.

The first and second researches are about the importance of having the ability to think creatively in order to develop ideas and notions that can produce many alternative solutions. While the third and fourth research are a description of the effectiveness of using quantum learning models with steps known as TANDUR (Tumbuhkan, Alami, Namai,

Demonstrasikan, Ulangi dan Rayakan). The fifth and sixth researchs are a study that shows the use of student‟s worksheet in the learning process can help students find lesson concepts easily.

To see learning using integrated worksheets with the Quantum Learning model that can improve creative thinking ability is still rare. And the feasibility, attractiveness and effectiveness of a student„s worksheet cannot be measured yet. So, the objectives in this study are:

1. Producing student„s worksheet based on quantum learning that is feasible to improve student's creative thinking ability of 4th grade elementary school.
2. Producing student‟s worksheet based on quantum learning that is attractive, easy and useful for students of 4th grade elementary school.
3. Knowing the effectiveness of student‟s worksheet based on quantum learning to improve student‟s creative thinking ability of 4th grade elementary school.

2 Methods

2.1 Procedure

The development procedure in this research refers to Borg and Gall's theory, namely (1) Potential and Problems, (2) Data Collection, (3) Product Design, (4) Design Validation, (5) Design Revision, (6) Product Testing, and (7) Product Revision (8) Trial Use, (9) Revision of the final product, and (10) Mass Production. However, this research was limited to stage 9. For stages 10, it was not carried out.

2.2 Research Population and Participants

This research was implemented in grade IV of elementary school number 11 Metro Pusat, Indonesia. The subjects were 54 students divided into experiment class (N=27) and control class (N=27) with purposive sampling technique.

2.3 Data Collection Technique

In this study, the basic techniques in data collection were quesionaire and test. Quesionaire were used as data collection techniques to media experts, material experts, linguists, and teacher of grade four. While test were used as data improving creative thinking ability of students grade four. Data collection activities were obtained from quesionaire and test, based on the guidelines that had been developed based on the aspect that had been observed which was operationally based on the indicators of creative thinking ability.

The analysis could be assessed from five aspects, namely feasibility, attractiveness, essiness, usefullnes, and effectiveness. The feasibility, attractiveness, essiness, usefullnes analysis of Student‟s Worksheet are obtained from the product validation. This analysis involved several phases, including the recapitulation of statements obtained from the validator, finding the average of validity level for each criterion, calculating the average score of each aspect, calculating the total averages, and matching the total averages with the category of validity of a predefined category as can be seen in table 1 and table 2.

Table 1. Validity Criteria for Material, Media, Language, and Experts Educator

Presentation	Interpretation
81% – 100%	Very valid, very thorough, usable
61% - 80%	Quite Valid, quite effective, usable with minor fixes
41% - 60%	Less valid, less effective, less complete, not to be used
21% - 40%	Invalid, ineffective, incomplete, unusable
0%– 20%	Very invalid, very ineffective, very incomplete, unusable

Source: Akbar [11]

Table 2. Criteria for attractiveness, easiness, and usefulness of the product

Criteria			Average
Attractiveness	Esiness	Usefulness	
Very Attractive	Very Easy	Very useful	3,26 - 4,00
Attractive	Easy	Useful	2,51 - 3,25
Less Attractive	Less easy	Less useful	1,76 - 2,50
Not Attractive	Difficult	Useless	1,01 - 1,75

Source: Akbar [11]

The effectiveness of student worksheet based on quantum learning to improve students‟ creative thinking ability obtained through the pretest and posttest scores. Based on the research results, the students‟ scores obtained were subsequently converted into student grades. Then, the result was analyzed by calculating n-Gain with criteria referred to Sundayana in table 3.

Table 3. Criteria of N-Gain

Gain Ternormalisation score	Interpretation
$-1{,}00 \leq g < 0{,}00$	Decreased
$g = 0{,}00$	Constant
$0{,}00 < g < 0{,}3$	Low
$0{,}30 \leq g < 0{,}70$	Medium
$0{,}70 \leq g \leq 1{,}00$	High

Source: Sundayana [12]

To prove the significance of the differences between the two groups, it is necessary to test using the Independent Sample T Test. Ho is accepted if the t count <t table, while Ho is rejected if the t value> t table with $\alpha = 0.05$.

3 Result and Discussion

3.1 Feasibility of the product

The feasibility of LKPD products based on quantum learning to improve students' creative thinking ability is carried out at the design validation stage. Analysis of students‟ worksheet feasibility was carried out with validation by experts and teachers. Material validation (Mr. Dr. Irawan Suntoro, MS), media validation (Mrs. Dr. Adelia Hasyim, M.Pd), language validation (Mr. Dr. Mulyanto Widodo, M.Pd) , and validation of grade IV teacher (Ms.

Deasy Vivta Rini, S.Pd). The recapitulation of the results of the expert and educator validation assessment can be seen in table 4.

Table 4. Product Validation Recapitulation

No	Validator	Score
1	Material Experts	86,90
2	Media Experts	89,77
3	Language Expert	88,63
4	Teacher of Grade IV	93,90
	Average	**89,80**

Table 4 shows that the average assessment score of 89.90, it is classified into very feasible category. Students worksheet developed follows the students worksheet requirements according to Darmojo, namely didactic requirements, construction requirements, and technical requirements to become a good and proper of students worksheet [13]. Dictactic requirements, namely requirements that must follow the principles of effective teaching and learning, constructive requirements, namely with regard to the use of language, sentence structure, vocabulary, difficulty level and technical requirements are the requirements for the preparation of students worksheet in terms of writing, pictures, and appearance.

3.2 The attractiveness, Easiness, Usefulness of the products

The test of attractiveness, easiness and usefulness of the product are carried out at the end of the lesson. The results of the assessment of the attractiveness, easiness and usefulness of the test can be seen in table 5.

Table 5. Results of the LKPD Attractiveness, Easiness, and Usefulness

No	Type of Test	Average	Criteria
1	Attractiveness	3,85	Very Attractive
2	Easiness	3,72	Very Easy
3	Usefulness	3,81	Very useful

Table 5 shows the results for the attractiveness test which consist of five indicators and got a score of 154 from a maximum score of 160. After being converted the final score, it got 3.85 in the category "Very Attractive". Meanwhile, the result of the easiness test which consists of 4 indicators gets a score of 119 out of a total score of 128. After being converted, the final score got value of 3.72 in the "Very Easy" category. The result of the next assessment is the LKPD usefulness test. The assessment of the usefulness test obtained a score of 61 from a total score of 64. The final score was 3.81 with the category “Very Useful”. This indicates that student‟s worksheet based on quantum learning model were feasible to be studied independently by students; they feel interested, easy and useful. Supported by Sugiyanto's, quantum learning model can focus on quality and meaningful interactions and emphasize the meaning and quality of the learning process [14].

3.3 The Effectiveness of Student’s worksheet to Improve Student’ Creative Thinking Ability on Experiment class and Control class

The effectiveness test was obtained from the pretest and posttest results given to the experimental class and the control class. Furthermore, we look for the average of the

N-Gain of each class. The results of increasing students' creative thinking skills can be seen in the following table.

Table 6. Recapitulation of N-Gain Comparison of CreativevThinking Ability in Experiment Class and Control Class

Average	Experiment Class	Control Class
Pre-Test	58,49	53,21
Post-Test	81,17	61,73
N-Gain	0,53	0,16
Criteria	Medium	Low

To prove the significance of the differences between experiment class and control class, it is necessary to conduct test by using the Independent Sample T Test. The test criterion is if t count ≥ t table with α = 0.05 then Ha is accepted. And vice versa if t count <t table then Ha is rejected. The results of hypothesis testing for the ability to think creatively can be seen in table 7.

Table 7. Result of T-Test

Component			Results
t tabel (0,05)	t count	Index	
2,006	8,14	t count > t table	Ha is accepted

Based on calculations with Dk = 52 and a significance level of 0.05 (5%), the results of t count = 8,14, while t table = 2,006. It is known that t count > t table = 8,14 > 2,006, it can be said that Ho is rejected and Ha is accepted. It can be concluded that there is a difference between the effectiveness of creative thinking ability using student‟ worksheet based on quantum learning and those don't use student‟s worksheet. It is in line with research conducted by Zeybek (2017) shows that the quantum learning model has helped students to improve learning achievement skills, has positively influenced students' attitudes towards learning, has increased their level of readiness and made learning more enjoyable because it regulates the learning environment to solve various senses of learning.

4 Conclusion

Student‟s worksheet were assessed and given input by material experts, media experts, linguists, and teacher reviewers with the criteria “very complete” and “usable”. The content and construct of validity showed that the student worksheet had the highest category. It is also effective by the results of pretest and posttest scores of creative thinking ability in experiment class with N-gain (53%) and classified into "medium" category and it is greater than control class (16%) which have category "low".

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A Comparative-Case Study of Junior High School English Curriculum between Indonesia and the Philippines

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Abstract. This study aims to describe the similarities and differences between Indonesian and Filipino English curricula and other special characteristics of the two countries in the ninth grade of junior high school. The comparative case research was conducted in two schools, namely SMP Frater Don Bosco Tarakan and SMA Terpadu PSU which were selected purposively as samples. The data obtained from classroom observations, interviews, and related documents were analyzed qualitatively using concurrent analysis (data sorting, presentation, and conclusion drawing). The Indonesian and Philippine curricula have similarities in terms of aims, objectives, pedagogical standards, and evaluation standards, but differ in learning objects. Some of the specific characteristics of both curriculum practices are taking advantage of today's advanced technology, building responsibility among students, evaluating student attitudes authentically, and moving away from judging academic achievement based on exaggerated grades.

Keywords: Curriculum, English as a Second Language (ESL), English as a Foreign Language (EFL)

1 Introduction

It is recognized thoroughly that English is everywhere and taught for different aims. English is used all over the world, within and between communities, it is important for English to be taught in every place [1]. It hardly cannot be denied that English is used universally and thus, English is taught in many countries.

Although every country teaches English, it can be taught differently. There are a few countries that teach English as a Foreign Language (EFL) and some also teach English as a Second Language (ESL). EFL denotes to those who learn English in non-English speaking peoples and ESL refers to those who learn English where it is used as a tool for communication and is officially spoken. [2]. It implies students learn EFL in nations where English is not used as a communication apparatus, for example, Indonesia, whereas in countries where English is formally spoken like in the Republic of the Philippines, students learn ESL.

There are two sides that argue about the EFL–ESL distinction. The first side believes that the EFL–ESL difference no longer serves a useful purpose while the other side believes that the distinction is a useful one [3]. The preliminary research shows that in the Philippines where English

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is communicated as a second language, the teacher speaks bilingually in the English teaching process which is same like in Indonesia where English is learnt as a foreign language. Yet, it is found that their learning objects are enormously different. These findings then are interesting to be more investigated especially for the curriculum of the English teaching in EFL and ESL countries.

Curricculum as all the planned practice or the setting which is used to lead the students in achieving the learning goals [4]. It denotes that curriculum contains a set of plan to be applied in the learning process and it organizes how the goal of the learning itself to be achieved. Therefore, this research intended to investigate the similarities and differences of English curriculum between Indonesia and the Philippines for grade 9 of junior high school. Later, the researchers also meant to discover special characteristics of curriculum practices that might be learnt and indirectly adopted by each country.

2 Literature Review

2.1 Curriculum

Basically, the curriculum is outlined in its widest sense, and it concerns on a series of teaching and learning which is conducted in formal places [5], and as what is to be learned [6]. In a specific meaning, curriculum is defined as "the overall plan or design for a course and how the content for a course is transformed into a blueprint for teaching and learning which enables the desired learning outcomes to be achieved" [7]. In the other words, curriculum provides all aspects to help the learning process operates. It covers the whole learning practice to be implemented in a class. The syllabus, the competency, the strategies and the other aspects are organized in the curriculum. More important, it also helps to keep in track while the process of education is operating. Briefly, curriculum is a regulation to run a learning process in a country and has a fundamental function to achieve the expected goal.

A curriculum is not developed without any particular guidance. It is designed based on certain principles. a curriculum must be formulated following these four principles: (1) philosophical principles, (2) psychological principles, (3) sociological principles, and (4) miscellaneous principles [8].

Philosophical principle means developing curriculum based on ideological values that apply in society. Meanwhile, Psychological principles represent basic human values and Sociological represents social values prevailing in society. Those denote the purpose, content, and process of education must be adjusted to the conditions, characteristics and development of the community. The last is a miscellaneous principle means the curriculum should change keeping pace with the changing needs and demands of the society. This principle expects a curriculum should be flexible enough to meet the individual differences. This indicates that the principle of flexibility should be supported in developing the curriculum.

The improvement of an educational program consequently requires various successive stages [9] and they are described as follow:

Aims and objectives. Planning the aims and objectives of the learning program becomes the first step in developing a curriculum. Aims (the most generally stated purposes) are too often sacrificed for specific learning objectives [10]. It means that aims are the general purpose that can determine what objectives will be achieved. Objectives are typically expressed in terms of expected outcomes [11]. In the other words, objectives reflect the most specific purpose.

Curriculum standard/learning objects. After determining the aims and objectives, subject areas that have been established, for example, English language needs curriculum standards, in this case the learning objects. This refers to discipline-specific and written so as to demonstrate to the students and the teacher what the students are needed to know or have the option to do toward the finish of the program of learning [9].

Pedagogic standard. The next stage in developing a curriculum is to distinguish the most applicable sequences for the transmission of educational program. This is the identification of the standard, and it comprises selecting appropriate teaching and learning methodologies. The fields of pedagogic standard are the pedagogical mode, type of learning approach, resources and technologies, formative feedback mechanisms, how students are arranged in the classroom, timings, assignments, learning assessments or formative learning models, and how the learning can be delivered to other situations [9].

Evaluation Standard. The final stage to set a complete curriculum is to develop an evaluation standard, in this case, a summative assessment. Summative assessment is an enactment evaluation which is planned to set up a documented final decision about the student's capability and it usually is taken at the end of unit classroom test, the periodical standard test, or the end-of-the-year state tests [12].

The components of curriculum, from developing the aim until the evaluation standard, should be clear and are arranged in appropriate stages. Determining the aims will derive the objectives. Having aims and objectives will draw learning objects. Then, pedagogic standard will be set up after completing the learning objects. The last, evaluation standard will evaluate whether the process on the right track or not. However, the components can be used to achieve the goal of education.

Indonesia has revised or renewed its curriculum ten times. The 1947, 1952, 1964, 1968, 1975, 1984, 1994, 2004 (Competency-based curriculum), 2006 (School-based Curriculum), and currently the 2013 curriculum are applied in stages [13]. This recent curriculum is oriented for the improvement and also the balance of knowledge, skill and behavior. It intends to encourage the better quality of gaining competencies in human resources. As time always changes, the curriculum is possible to be revised again and again. These changes are a logical consequence of changes in the political, socio-cultural, economic, and science and technology systems in the nation and state society. This is because the curriculum as a set of educational plans requires to be dynamically modernized in agreement with the demands and changes occurred in society. All Indonesian curricula were considered based on the same philoshopical foundation, namely Pancasila and 1945 Constitution, the difference is emphasized on educational goals and approaches [14].

The Republic of the Philippines has many reforms of its education system. It started from colonial to global influence. Precisely, it was began since the Spanish occupancy period in 1521-1898, then the United States of America period in 1900-1942, continued by the Japanese devised

curriculum in 1942-1944 and the new one is in 2016, the Philippines autonomously applies a new curriculum namely K (Kindergarten) to 12 Curriculum [15].

Some curricula have also been applied in the Philippines. It is a logical consequence of the change of time. A curriculum certainly can be revised due to the needs of a country. Considering all needs, the Philippines has revised its curriculum many times to try enhancing its country.

2.2 English as Foreign Language (EFL)

EFL is learnt by people who live in a non-English speaking country. The need for English as a language of international communication cannot be denied by Indonesia. The development of EFL in Indonesia started before the independence phase: before 1945, then in the independence and post-independence phase: 1945-1966, the new order regime phase: 1966-1998, and last the reformation phase: 1998-present [16].

The present position of English language in Indonesia is as compulsory in high schools. Because English is a worldwide language and as the most spoken one by the worldwide citizens for many purposes, the (Indonesian) government later obliges individuals to learn it in all levels of formal education and even some private schools have introduced English from primary school to higher degree [17]. But, the 2013 Curriculum only obligates English to be taught in junior and senior high school. Otherwise, English in private schools is learnt from elementary to higher degree. In spite of this, English is not taught throughout in all levels, especially for public schools.

Experiencing occupancy from a non-native English speaker has made Indonesia instill English as a foreign language. It also needs a long journey to develop and make the position of English is legal and clear.

2.3 English as Second Language (ESL)

ESL is taught in an English speaking country or leant by students who live in the culture of the target language. The English language had been adopted as a medium of instruction in the Philippines since the United States of America occupancy period. In 1900, the American colonial government apparently comprised an English as the only policy to be taught in order to bond the Filipinos who had many distinctive linguistic foundations, and to provide them entrance to modernization [18].

English plays an important role as the administrative and business language in the Philippines. It is claimed that English is a formal language and treated as a medium in teaching and learning process. However, the Philippines' students study English as a supplementary language because they have different mother tongue languages [19].

3 Empirical Investigation

3.1 Research Design

The employed design in this study was a comparative case research using qualitative approach. A comparative case studies [20], also called multicase or multisite case studies, involve collecting and analyzing data from several cases and can be differentiated from the single case

research that may have subunits or subcases embedded within. Here, the researchers gained insight into the component of English curriculum case. It was not only one case because the component of English curriculum studied was from two countries, Indonesia and the Philippines.

3.2 Research Subjects

The subjects were taken purposively in which [21] particular subjects were important to the research as 'typical' examples of the issue. The selected school from the Philippines was PSU Integrated School-High School because the school is a laboratory school that is known having high quality administrators. The compared school was SMP Frater Don Bosco Tarakan in Indonesia because this school was considered to have the same level and characteristics with PSU Integrated School-High School. The first location was conducted in PSU Integrated School-High school, Bayambang city, Pangasinan province, the Philippines on September 2019 and the second location was taken in SMP Frater Don Bosco, Tarakan city, Kalimantan Utara province, Indonesia on November 2019.

3.2 Data Gathering Procedure

Observation, interview, and documentation were used in collecting data. The observations were conducted to see the classroom activities and surrounded areas. Any activities were jotted down into a field note following Hays and Singh's format [22]. Data saturation was reached after eight observations and there was no need to observe more teaching processes.

Semi-structured interviews were then carried out using a prepared interview guide followed up with open-ended questions to seek further details and description [23], [24], and [25], and were recorded and transcribed for analysis [26].

Documents are also the sources of data [27] in this study, specifically: curriculum guide, lesson plan, textbooks, students' assignments, photos, calendar of academic, and course schedule. These documents were interpreted to articulate meaning around the topic discussed [28].

3.3 Data Analysis

Transcibed data were analyzed by following "three concurrent flows of activity, namely data reduction, data display, and conclusion drawing or verification" [29]. This procedure was supposed to be able to present the data in the understandable way.

3.4 Trustworthiness

Validity is an important key to effective research [30] because it increases the trustworthiness of the data. The trustworthiness of the data in this study was recognized by means of triangulation [31]. In this study, triangulation of sources [32] was chosen to verify the data from different types of data collection. This technique was for checking out the consistency of different data sources within the same method. It means comparing the results of observation with interview until checking interview against documents and other written evidence that can corroborate what interview respondents report.

4 Findings and Discussion

4.1 Findings

This study was completed on January 24, 2019 after conducting research in PSU Integrated School-High School, Bayambang, the Philippines and SMP Frater Don Bosco Tarakan, Indonesia, especially for grade 9 of junior high school.

The consistency of the data had conjointly been clarified using triangulation approach based on what were found on the related documents, field note, and interview transcript. The data were assembled following the components of curriculum based on Scott's curriculum components [9], specifically: aims and objectives, curriculum standard (learning objects), pedagogic standard, and evaluation standard (summative assessment).

4.2 Curriculum Component of Indonesia's EFL Curriculum

Aim and Objectives. The English teaching aimed at improving students' communicative competence and literacy skills. The objective was to produce graduates who were able to communicate in three discourses: interpersonal, transactional, and functional language in written and spoken at the informational literacy level, for doing the social function, in personal, social culture, academic, and profession context [33].

Curriculum Standard/Learning Object. Learning objects for grade 9 were the interpersonal and transactional communication text, and the functional texts (for example: expression of congratulation, agreement, giving opinon and suggestion, asking for and giving clarification, narrative text, procedure text, report text, advertisement, etc.) [34].

Pedagogic Standard. The English curriculum applied a student-centered approach. The learning approach was scientific and supported by the other teaching methods such as a discovery learning. Utilized resources and technologies were book, video, audio, picture, internet, teacher's voice, natural environment, hand phone, PPt, LCD projector, and speaker. The feedback mechanism happened from the opening until the closing of teaching process. The used seating arrangement was a letter U or others, and it depended on the appropriate setting. The English subject took 80 minutes per meeting and there were two meetings. The tasks were written, performance, and project tasks. The types of tasks showed that the formative learning approach was authentic and followed the Anderson et al.'s cognitive process [35]. The last, the students learned outside the class.

Evaluation Standard/Summative Assessment. There were six assessments in grade 9 in which they were employed to assess knowledge and skill. They compromised written tests, oral tests, projects or presentation tasks. The attitude was assessed through observation, anecdote journal, peer-assessment, and self-assessment. The result of knowledge and skill were marked with score and predicate. While the result of attitude was marked with a predicate. The follow-up of students' achievement was remediation for whom were not passed the mastery-learning target.

4.3 Curriculum Component of the Philippines' ESL Curriculum

Aim and Objectives. The aim of the English curriculum was to help students acquire highly developed literacy skills. The objective of the curriculum was then to produce the graduates who apply language conventions, principles, strategies, and skills through the literature of the globe in (1) interacting with others, (2) understanding and learning other content areas, and (3) sustaining for themselves in any endeavors they may involve [36].

Curriculum Standard/Learning Object. The learning object of grade 9 itself was about the Anglo-American literature (for example: the Epic of Beowulf, the Pardoner's Tale, and Romeo and Juliet).

Pedagogic Standard. Student-centeredness was the applied pedagogic mode. The types of learning approach were constructivist, inquiry based, collaborative, integrative, and reflective learning approach. The learning sources and technologies were book, video, picture, internet, PPt, LCD TV and projector, speaker, Manila paper, envelope, and carton. The feedback mechanism happened from the opening until the closing of teaching process. The seating arrangement was Letter U or orderly in-rows, but it depended on the appropriate setting. The English subject took 60 minutes for each 4 meeting. The tasks were written tests, performance/project tasks using Anderson et al.'s cognitive process. The students might learn outside.

Evaluation Standard/Summative Assessment. There were three assessments in grade 9 in which they were used to assess knowledge and skill. They were written work, performance work, and a quarterly exam. The behavior was assessed through observation using an index card. The results of the three learning domains were marked with predicate. The follow-up of students' achievement was remediation for whom were not passed the mastery-learning target.

4.4 Discussion

The Similarities and Differences. In view of the findings, there were similarities and differences between Indonesia's EFL and the Philippines' ESL curriculum for grade 9 of junior high school. They were analyzed through the components of the curriculum as depicted below.

Aims and Objectives. Generally, the aims and objectives of Indonesia and the Philippines' English curriculum were similar. Both curricula particularly intended to achieve communicative and literacy competencies.

Since the term 'communicative competence' refers to students' ability to use the language appropriately in different linguistic, sociolinguistic, and contextual settings, the Indonesian and Philippine curriculum similarly desire to produce the students who are able to use the English language in personal and social life. It shows that the background of English learning cannot be separated from human life. Moreover, a curriculum should also be formulated following psychological and sociological principles. The psychological principle represents basic human values and the sociological principle signifies the social value prevailing in society. The notion of literacy means the competence of comprehending and connecting the obtained knowledge for real life.

Indonesia's EFL curriculum wants to produce graduates who are able to communicate in three discourses: interpersonal, transactional, and functional language in written and spoken at informational literacy level. In the American Library Association, it is stated that "information literacy is a set of competencies expecting students to recognize when they need the information and are aware to effectively locate, evaluate, and use it" [37]. In line with this notion, the Philippines' ESL curriculum expects the graduates to apply rule, principle, strategy, and ability in interacting with the others. In addition, they also should understand and study other fields and bring ability for themselves which can be used for encountering many things in the future. Briefly said, the aims and objectives of Indonesia's EFL curriculum and the Philippines' ESL curriculum are similar, because they commonly expect for mastering communicative and literacy skill.

Curriculum Standard/Learning Object. The curriculum standards (learning objects) of the Indonesia and Philippines' English curriculum have huge differences. In Indonesia, the content is more focused on the text based which reflects on factual, conceptual, and procedural knowledge through speaking, listening, reading and writing practices [38]. Specifically, interpersonal and transactional texts, functional texts, and monolog texts are taught as the main materials. For instance, the learning objects of grade 9 are expression of congratulation, passive voice, advertising, fairy tales or narrative, procedure texts, and report texts [33] and [34].

In the Philippines, the students learn based on literary works. Their English curriculum named Language Arts and Multiliteracies Curriculum (LAMC) in which it does not mean art course is incorporated in an English subject. The language art is defined as the study of the six modes of language, namely: listening, reading, speaking, writing, viewing, and visually representing. In the other words, it is the art of using language proficiently to communicate an idea through English skills. Therefore, in the English Curriculum Guide, it is stated that LAMC is attached in certain language acquisition, learning, teaching, and assessing principles. Multi-literacies recognize the students that there are various kinds of literacy at work in the society, so the content is types of globe literature from the Philippines and the other countries [36]. The learning object of grade 9 is the Anglo-American literature and the selections for instance, are the Epic of Beowulf, the Pardoner's Tale, and Romeo and Juliet.

Literature offers a few prominences for learning English. Literature provides ample illustrations of real-life usage of language in different circumstances and is beneficial authentic materials [39]. It also offers plenty of prospects for learners to enhance their lexical, grammatical, pragmatic, cultural, and discoursed views. Hence, Indonesia also learn English through literature, but the selection is different. The successful utilization of literature relies upon the suitable choice of literary versions. The following considerations are used to determine the selection: (1) the student's cultural background, (2) the student's linguistic proficiency, (3) the student's literacy background, (4) the student's age and level of understanding, (5) interesting texts, and (6) availability and suitability of the text [40].

Ultimately, the curriculum standard (learning object) of the Indonesia and Philippines' English curriculum for grade 9 of junior high school is not similar. Text of interpersonal and transactional conversation, and functional and monolog texts are the learning objects of Indonesia's EFL curriculum. While the learning objects of the Philippines' ESL curriculum are some selections of Anglo-American Literature.

Pedagogic Standard. The similar pedagogic standard between Indonesia and the Philippines' English curriculum is seen from the pedagogic mode, types of learning approach, formative learning approach (including formative assessment), feedback mechanisms, tasks, sources and technologies, and the seating arrangement. Conversely, they are different on time allocation and their environment.

The first similarity is the pedagogic mode or the way the teacher interacts with the learners. The pedagogic standard represents an appropriate way to deliver the English curriculum standard (learning objects) [9]. To do so, both Indonesia and the Philippines similarly focus on student centeredness in the process of teaching and learning. The Indonesian curriculum is intended to focus on encouraging students to be effective communicators [33] and the Philippines curriculum is focused on fostering students who are communicatively competent and multi-literates [36]. These results are in line with Richards who presents that a more student-focused approach affects the quality of students' participation and interaction, and the learning outcomes [7] Utilizing this kind of interaction between the teacher and the learners as the pedagogic mode gives big chance to achieve the expected outcomes of both countries.

Indonesia requires scientific approach, while the Philippine curriculum obligates constructivist approach which is supported by integrative teaching, reflective, collaborative, and inquiry-based approach. However, they are considered as the similarity because the scientific approach in the 2013 Curriculum holds the existing learning in constructivism theory [41]. More specifically, activities such as observing, questioning, reasoning and experimenting the scientific approach display the characteristics of constructivism learning. Therefore, it can be said that the scientific approach is similar to the constructivist approach.

The next discussed similarity is the formative learning approach and the formative feedback mechanism. Generally, the formative learning approach as well as the formative feedback mechanism can be integrated in all parts of the lesson. Basically, both curricula have three parts of learning activity: pre-activity, whilst activity, and post-activity. The feedback is always needed in the learning process as it can help to check how far the students understand the topic. In this pedagogic standard, all activities are considered forming students' knowledge development. Both curricula then follow the cognitive development process which compromises remembering, understanding, applying, analyzing, evaluating, and creating.

Afterwards, the tasks that the students sometimes need to complete in Indonesia and the Philippines are written and performance such as quizzes and role-play. The tasks of the Philippines' English curriculum are even drawn clearly in its DepEd Order [36]. Checking the students' comprehension can be done not only through giving written questions but also oral activity such as asking and answering session. However, both curricula have the three types of assessment: assessment of learning (formative assessment), assessment for learning (summative assessment), and assessment as learning (continuous assessment) [42]. Additionally, formative assessment should not be confused since it has different ways and purposes with summative assessment.

The next similarity is set on learning sources and technologies. In spite of learning English differently, the two curricula are also similar in using books, internet sources, and electronic generated slides as the resource and technology. Certain technologies are used to support different English teaching [43]. Teaching English by using a grammar-translation method can rely on a blackboard, while an audiolingual method can use audiotape and a communicative language

teaching needs to use technologies, which support to authentic materials. It means whether it is EFL or ESL, the same technology can be used in each class.

The next is a classroom seating arrangement. With the seating arrangement in an orderly row and letter U or following the necessity, both Indonesia and Philippines consider the appropriate condition for supporting the learning process. In step with seating arrangements have the potential to assist preventing problem behaviors that decline students' attention and reduce available instructional time [44]. Additionally, the teacher should allocate the seating arrangements that are appropriate to the type of learning activities such as let the learners sit in a circle as they work in pairs or groups.

Moving to differences, the two curricula lie on the timings. For gaining the knowledge of English, the Philippines set 240 minutes per week and 160 minutes in Indonesia. Because English as an ESL in the Philippines, they have more time to learn it, and EFL setting (as in Indonesia) often involves limited contact hours [45].

The last difference is the environment. Both EFL and ESL students can learn in another environment or outside the classroom through group work or homework. However, in an ESL situation, the students not only acquire English in their surroundings, but also use English either in or outside the classroom since their environment supports for it. While in an EFL situation, the students learn English only in the classroom or school environment and continue to speak in their own language once they go outside the classroom. It is beneficial to consider the pedagogical consequences for a context range from high visibility, equipped with the target of language outside the class to no access beyond the class. There are many reasons for learning English and lots of totally different circumstances in which English can be adapted, so it is not surprising that there is an enormous selection of teaching approaches. It cannot be assumed that one approach will be suitable for all students in all conditions.

Evaluation Standard/Summative Assessment. Originally, both Indonesia and the Philippines' English curriculum assess three generic domains of competence: behavior, knowledge, and skill [46] and [36]. Yet, they are different in managing those aspects. As the final result, Indonesia has three different scores for three aspects written in the students' rapport, while the Philippines combine them as one score.

The mastery learning represents in students' rapport using a predicate and score in Indonesia, while it is only the predicate in the Philippines. The follow-up for students' achievement is remediation. It means the students who do not pass the mastery learning should take the remediation.

The Special Characteristics of Indonesia and the Philippines' English Curriculum. There are some special characteristics of Indonesia and the Philippines' English practice that might be adopted. The first is both curricula have taken advantage of today's sophisticated technology. In Indonesia, the teacher put the learning sources from the internet into the learning process, and they even connects to the internet, while the learning process is happening. While in the Philippines, the teacher applies flipped classroom. Flipped classroom is a leaner-centeredness approach dealing with two segments of interactive activities, taking course materials from the computer at home while engaging the concepts in the classroom under the guidance of a teacher [47]. With this approach, a teacher can increase the interactive period within the class because the students have got the materials at home and can discuss it directly with the teacher. Obviously, the advancement of technology affects the English language teaching in these two countries. The way the Philippines implements it might be adopted by Indonesia or vice versa.

Secondly, both curricula put building responsibility among the students as a concern. In Indonesia, the character of responsibility is set on the teacher's journal and marked anytime the teacher finds it through observation. In the Philippines, the teacher also intends to build responsibility among the students through real action, that is, seating arrangement. They are responsible to their seatmate. So, if one of them is too noisy and then the seatmate will be represented to give them discipline. Implementing real action to build the students' character might be adopted by each country.

The third is they assess the students' attitude authentically through a proof. In Indonesia, the teacher has journal or observation sheet to observe their attitude authentically. In the Philippines, the teacher has index card. The index card contains with students' picture and identity. It is used to mark the students, their attitude and absent. It is approximately 8x6 square meters and it is easy to be hold during the lesson. The teachers just bring their prior knowledge of the students' attitude value and write down important information. The picture can also help them remembers the students. Briefly, Indonesia has a set of complete instrument in assessing the students' attitude and the Philippines have a simple instrument for that. In addition, the Philippines implement what Indonesia does in a special subject, namely, Good Manners and Right Conduct (GMRC) subject. In 2019, the eighteenth congress introduced that the GMRC subject can provide the holistic concept of character development and moral values formation [48].

The last is veering away from valuing only academic achievement based on high grades. In Indonesia, putting ranking based on students' grades has been removed in the students' report. It depends on the teachers or school if they want to give it or not. While in the Philippines, giving awards and recognition is regulated in DepEd Order No. 36 of 2016 [36], in order to support of the holistic development of Filipino learners. It is important to move toward valuing and celebrating a wide range of student achievements covering excellence in academic, leadership, and social responsibility. It recognizes that each student owns unique strengths that need to be identified, strengthened, and publicly acknowledged.

Generally, if it is seen through the component of the curriculum between Indonesia and the Philippines they are almost similar, they are just different in the selection of the learning areas. Therefore, there are two sides that argue about the EFL-ESL distinction because they are almost similar in learning English. However, ELT should be organized following a certain principle. A curriculum must be formulated following philosophical principles, psychological principles, sociological principles, and miscellaneous principles. Additionally, Indonesia and the Philippines'

English curriculum have followed a number of sequential stages in developing a curriculum. They are aim and objectives, curriculum standard (learning objects), pedagogic standard, and evaluation standard.

5 Conclusion

Indonesia's EFL Curriculum and the Philippines' ESL Curriculum have similarities and differences. The similarities are the aim and objectives both curricula have the intention to enhance English communicative and literacy skills. Interpersonal and transactional texts, functional texts, and monolog texts are the learning objects of Indonesia's EFL curriculum for grade 9. While the learning objects of the Philippines' ESL curriculum are some selections of Anglo-American Literature. The similar pedagogic standard between Indonesia and the Philippines' English curriculum is seen from the pedagogic mode, types of learning approach, formative learning approach (including formative assessment), feedback mechanisms, tasks, sources and technologies, and the seating arrangement. The last, both curricula apply authentic assessment holistically. They assess knowledge, skill, and character through an exact guidance. Yet, they are different in organizing the assessment. Moreover, they are different on time allocation, and their environment.

A few special characteristics of Indonesia and the Philippines' curriculum practices are: (1) both curricula have taken advantage of advanced technologies, (2) both curricula positioned building responsibility among the students as a concern, (3) they assess students' attitude authentically through an evidence, and (4) they veer away from valuing only academic achievement based on excessive grades.

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Self-Assessment on Information Literacy Competency of Students in Indonesia-Papua New Guinea Border Area During The COVID-19 Epidemic

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Abstract. COVID-19 requires students to be able to study independently, supported by information literacy skills. The purpose of this study is to conduct a self-assessment on the information literacy competency of students that they apply in learning activities during the COVID-19 outbreak in terms of gender and ethnicity. Respondents conduct a self-assessment of their information literacy competency. The total number of respondents are 200 from four tertiary institutions in the Indonesian-Papua New Guinea border area. In general, students have a moderate level of information literacy competence. Based on the findings of this study, females of non-Papuan ethnicity had the best level of information literacy among the other categories of respondents. The results suggest the following action that requires particular policies that are expected to improve this ability. The blended learning model is assumed to be most suitable for students in Papua who have limited infrastructure for learning activities during the COVID-19 epidemic.

Keywords: information literacy, self-assessment, gender, ethnicity, COVID-19

1 Introduction

The emergence of the coronavirus (COVID-19) pandemic presents a challenge for a country. The epidemic that emerged from China spread rapidly to various places in the world [1]. The initial spread of COVID-19 in Indonesia began in February 2020 with the Jakarta cluster, two months after the emergence of the coronavirus in Wuhan, China. The government is taking several strategic steps to be implemented in the face of a pandemic in the form of an independent isolation program, social restrictions, physical restrictions, prohibiting homecoming, and large-scale social limits. Types of businesses and services such as retail stores, education, places of worship, government offices, and public facilities are closed to reduce the spread of COVID-19.

Policies implemented in Papua related to COVID-19, especially on Animha lands, are thought to have an impact on the academic sector. Papua implements restrictions in the form of closing educational facilities from elementary to tertiary levels. The closure of educational facilities has been carried out by various governments around the world to prevent the spread of COVID-19 because educational facilities are a place for thousands of students and academic staff to interact. Students and academic staff are forced to adapt to these circumstances to change traditional (face-to-face) educational patterns using technological facilities. In China itself, since

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the spread of the COVID-19 epidemic, universities have to get used to migrating massively from face-to-face learning to online learning [2]. The massive migration of learning taking place in other parts of the country, along with the massive spread of the COVID-19 epidemic [3-7].

The demands for educational transformation were imposed in a very brief period so that not all educational institutions were ready to carry out the transformation of online learning. The teaching staff faces problems in the form of limited experience using online learning, unprepared infrastructure in the form of facilities, and limited support from the technical team [2, 4, 6]. On the other hand, the challenges that arise are not only related to technical problems but also related to students' attitudes towards learning, such as inappropriate content of learning materials, lack of discipline, and a home learning environment that is not supportive of distance learning [2]. The problem in the transformation of distance learning that must be carried out by the academic community requires determination and consistency to be able to implement changes by continuously adapting and be able to increase the effectiveness of distance learning that will continue until the Covid-19 epidemic can end.

Students need provisions in carrying distance learning, including the need for information literacy skills. This ability will accompany students to become independent learners. [8] emphasizes that information literacy has a close relationship to foster critical thinking skills in students. Meanwhile, [9] identified that information literacy has a relationship with student motivation and confidence in searching for information using the internet. With proper information literacy skills, students are expected to be able to follow the transformation phase of distance learning without any obstacle.

Research related to the impact of COVID-19 on the world of education is still limited. Much research focus explores from the medical side and the economic side. In particular, in higher education in the global realm, research is still very limited on the effect of COVID-19 on assessments of STEM synthesis, dental education, and surgeon education chick. Meanwhile, in the context of Indonesia itself, there are only a few studies including the perception of mathematics teachers in implementing e-learning [10], the experience of using remote learning for students during the COVID-19 period [11], the influence of COVID-19 on the concept of independent learning [12]. Previous researches neglect the context of rural areas where facilities and infrastructure conditions are generally different from the western part of Indonesia.

This research will focus on exploring information literacy skills in universities located in rural areas / the border between Indonesia and Papua New Guinea. Information literacy skills are considered important for students to master because the distance learning model requires students to be independent learners. By exploring the level of student literacy skills, it is hoped that they can find empirical data that will be used for curriculum development, learning models, and policies to support distance learning, especially during the COVID-19 pandemic.

The success of students in the academic context, especially in distance learning is inseparable from the academic abilities of the students. The ability of student information literacy is not a single circumstance to be improved through learning because many factors influence the indicators of this ability. Difficulties in information literacy competency are not only experienced by both regional and international students [13]. [14] has identified that the ability of students to read academic texts and the ability to practice writing is very closely related to gender, culture, and educational background. Moreover, the same view was expressed by previous research which identified that gender has a role in the ability of information literacy

[15-17]. However, research findings also underline that information literacy is independent without gender influence [18-20]. The previous studies related to the influence of gender and the ability of information literacy may not be generalized to a wider scope related to student academic life.

The ability of information literacy is crucial to be mastered by students through independent learning or intervention from the university. The university should be able to be a pioneer in improving information literacy competency with a long-term goal of having students autonomous when dealing with all projects that require sound and quality sources of information [21]. The ability of information literacy is a shared responsibility in a wider scope of academic literacy [22]. A harmonious synchronization between librarians and the academic life of students is needed [23]. Librarians have a responsibility to get out of their comfort zones to be able to work with students in various disciplines [24]. [25] added that academic ability is formed from the collaboration between the academic community consisting of librarians, staff, and academics.

Students become the main actors in obtaining information literacy competency, need solid support from academia, where students carry out their studies. The importance of information literacy for students to succeed in their academic lives has received special attention from previous studies. In the global sphere, [23] describes the behavior and perceptions of students majoring in history toward information literacy. Also, active learning carried out by students with module support can improve the information literacy and academic abilities of international students [24]. Moreover, belief in importance and self-efficacy is an important part of the core capabilities of information literacy [23]. [26] found the context of academic literacy, which lacked support from universities through ICT involvement and information literacy. Meanwhile, [27] found that teaching staff and the use of social media as learning media affect the level of digital literacy skills of students. Previous research in the global realm suggested that internal and external factors of students influenced the ability to equip information literacy competency to students.

At the beginning of its emergence, information literacy only rests on terms that are conical in the library and its staff. In the last 30 years, the term information literacy has become popular in the academic world. However, awareness to teach it in the new class emerged in 2002 [28]. The teacher starts to look for ways to teach information literacy that, at first glance, seems simple, but it is also quite complicated. When talking about information literacy, the terms that follow are always related to searching, evaluating, processing, and communication dissemination information. Multiple stages and processes ultimately raise a big question mark in the world of education about how to teach information literacy in the classroom and what challenges arise in practice [23]. In the academic world, educators need to ensure the curriculum can accommodate and develop abilities students so students can demonstrate their ability to complete assignments based on their competency [29].

In the academic world, information literacy has a key role in making students successful. There are three main components in student academic development consisting of self-efficacy, motivation, and information literacy [30]. Furthermore, these three components also influence students' abilities and preferences in choosing learning resources [23]. Students need the ability to search for information to effectively communicate that information through the process of analysis to the organization of information [26]. Moreover, this ability becomes the most

representative ability in the academic world if accompanied by decent digital competency [31].This Word document can be used as a template for papers to be published in EAI Core Proceedings. Follow the text for further instructions on text formating, tables, figures, citations and references.

2 Methodology

The research used a survey strategy with a descriptive quantitative approach. The study was employed random sampling technique and gather respond from 200 students. Respondents came from four universities in one district in Papua, which is directly adjacent to Papua New Guinea. Students have different socioeconomic backgrounds. Students come from two major ethnicities, namely Papuan and non-Papuans. The types of supporting facilities for distance learning owned by students are also minimal because not all have laptops or smartphones. Data obtained from questionnaires distributed to students in August 2020. For students who have supporting facilities in the form of laptops/smartphones, and internet quotas, the instruments are distributed via Google form. Meanwhile, for students who do not have the supporting facilities, students fill out a paper-based questionnaire. From the data collection process, 120 responses were obtained from Google form, and 80 responses were obtained from paper-based questionnaires. Demographic data of respondents, as shown in Figure 1 and Figure 2.

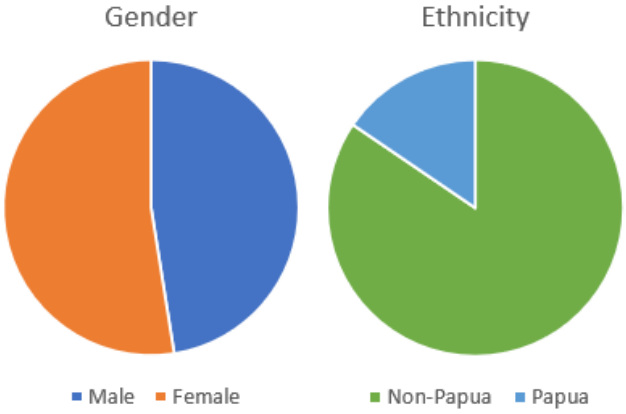

Fig 1. Gender and Ethnicity of Respondents

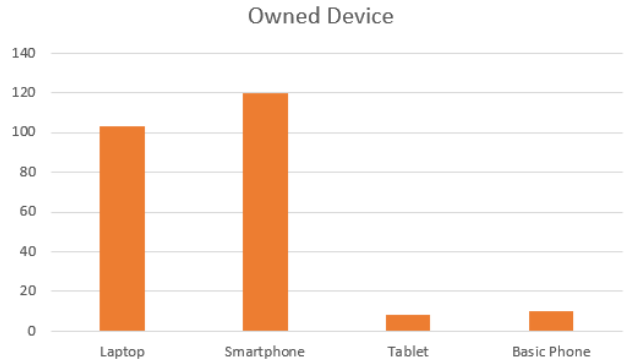

Fig 2. Respondents' Owned Devices

The research instrument was developed from previous research [32], which was translated into Indonesian to facilitate respondents quickly filling the questionnaire. The instrument is in the form of a close-ended questionnaire with seven Likert scales. Furthermore, four Indonesian lecturers conducted instrument validation, and the researcher was conducted pilot testing with 50 students to determine the reliability level of the instrument. The reliability and validity tests were carried out using SPSS 23, and the results showed a reliability test of 0.73 and a validity test of 0.44, which concluded that the instrument was feasible to use.

The instrument contains 21 questions that aim to carry out self-assessment of students' literacy competence. The instrument also aims to determine the students' strategies to learn information literacy competence. Furthermore, some questions are used to obtain respondent demographic data, which will be used to support data analysis. The data that have been obtained are processed using SPSS 23 to determine the mean and SD. Furthermore, the information literacy competency level uses the interpretation framework in the form of 1.3-3.5 (weak), 3.6-5.8 (moderate), and 5.9-7.0 (high) is applied to interpret the results of data processing. In addition, the data of students' strategies of obtaining the information literacy competence are analyzed using frequency chart.

3 Result and Discussion

The first objective of this study is to determine the level of information literacy competency through self-assessment. Descriptive statistical data processing is used to determine the level of student information literacy competency. Overall, the data shows that students have information literacy competencies at a moderate level ($\bar{x} = 5.1$). Table 3.1 presents an overview of these capabilities.

Table 1. Self-assessment on Students' Literacy Competence

No	Statements	$\bar{x}$	σ
1	The ability to download scientific information from the internet is needed to make academic assignments.	6.15	1.17
2	In completing academic assignments, students need information search strategies using keywords in search engines (google/google scholar).	4.46	1.89
3	Students will be interested in making academic assignments in which the materials must be searched manually (offline) from printed sources of research books/research articles.	4.69	1.89
4	Students find it easy to find the right keywords to find information from the internet for academic assignments.	5.1	1.81
5	Students need the ability to assess the quality of information sources to complete academic assignments	4.41	1.91
6	The ability to find relevant information from the internet is useful for students in completing academic assignments.	5.62	2.04
7	It is easy to assess the quality of information that is obtained from the internet	4.87	1.73
8	When reading sources of scientific information, it is challenging to distinguish between the opinion of the author or the part of the facts.	5.34	1.39
9	Knowing the structure/framework of scientific information sources (research books/journals) is required to complete academic assignments.	5.62	2.05
10	In completing academic assignments, students must be able to adapt scientific information sources as an assignment framework.	5.66	1.27
11	Students will be challenged if they get an assignment to identify the structure/framework of scientific papers/research journals. 4.73 1.74	4.73	1.74
12	Students feel confident enough in completing academic assignments that must be adapted from scientific information sources (research books/journals).	5.41	1.55
13	To complete academic assignments, students need the ability to type using document processing software (Ms. Office).	5.76	2.12
14	In completing academic assignments, students need to pay attention to the professional ethics of academics (not copy-paste / not cheating).	4.19	2.16
15	If the lecturer assigns me to upload assignments using the internet, I will feel enthusiastic.	5.15	1.93
16	I will feel enthusiastic about doing a presentation assignment in front of my friends.	5.18	1.78

Based on the information retrieval ability (1-4) on information literacy competency, based on Table 3.1, the data shows that respondents' ability of information retrieval at a moderate level ($\bar{x}$ = 5.1). The ability of respondents to downloading information shows a medium level ($\bar{x}$ = 5.06). Meanwhile, the ability to use search strategies and the ability to find physical/ offline reference sources is at a moderate level ($\bar{x}$ = 4.46 & 4.69). Furthermore, students also have a moderate level of ability to use the right keywords to find information ($\bar{x}$ = 5.1).

Furthermore, Table 3.1 illustrates that based on the information evaluation ability (5-8), the data show that respondents have abilities at a moderate level ($\bar{x}$ = 5.06). In the first indicator, namely the ability to assess the quality of information, the data shows that the respondent has the ability at a moderate level ($\bar{x}$ = 4.41). Meanwhile, respondents' ability to search for relevant information is at a medium level ($\bar{x}$ = 5.62). The next indicator is the ability to assess the quality of the reference and the ability to distinguish opinions and facts from respondents who are also at a moderate level ($\bar{x}$ = 4.87 & 5.34).

On the other hand, in the information processing ability (9-12) in Table 3.1, the data indicate that respondents have a moderate level of ability ($\bar{x}$ = 5.35). The ability to identify the scientific information structure and the ability to adapt the source of scientific information from respondents is at a moderate level ($\bar{x}$ = 5.62 & 5.66). Furthermore, the self-efficacy respondents who identify the scientific information structure are at a moderate level ($\bar{x}$ = 4.73). In the last indicator, namely self-efficacy adapting scientific information sources, the data is shown on ($\bar{x}$ = 5.41), which indicates that respondents have a moderate level of ability.

Finally, the data on the sub-communication competency and student information dissemination (13-16) shows that respondents have the moderate ability ($\bar{x}$ = 5.07). Respondents' ability to manage the document is at a medium level ($\bar{x}$ = 5.76). Furthermore, the respondents' belief in professional academic ethics is also at a moderate level ($\bar{x}$ = 4.19). On the other hand, the ability to use digital means and the ability to communicate information to respondents are at a medium level ($\bar{x}$ = 5.18 & 5.1).

Table 2. Information Literacy Competency Viewed from Gender and Ethnicity

Variables	Gender ($\bar{x}$)		Ethnicity ($\bar{x}$)	
	M	F	Papua	Non-Papua
Information retrieval competency	5.16	5.08	4.9	5.07
Competency of evaluating information	4.81	4.94	4.6	5.00
Competency of processing information	4.94	5.32	5.4	4.79
Communication and information dissemination competency	5.06	5.58	4.1	5.01

In addition, this study will also identify information literacy competency in terms of gender and ethnicity, which can be seen in Table 3.2. Based on the gender perspective, there are differences between males and females on information literacy competence. In the gender perspective, on average, female has better information literacy competence compare to male ($\bar{x}$ = 5.23). Meanwhile, related to ethnicity, there are differences between Papuans and non-Papuans ethnic on the information literacy competence. In general, non-Papuan has slightly better information literacy competence compared to the other ethnicity ($\bar{x}$ = 4.97)

The next question that the researcher asks respondents is the respondents' strategies of getting their information literacy competency. Figure 3.1-3.5 shows the column chart of the distribution on which respondents obtain information literacy competency. The data obtained from respondents is processed using the number of frequencies to determine the distribution of places where information literacy competencies are acquired. In general, based on Figure 3.1-3.5, the majority of respondents obtain information literacy competency from self-learning. The second strategy of the acquisition of information literacy competency is at Class Co Courses. Meanwhile, the strategy of using the library and learning from friends are rank third and fourth.

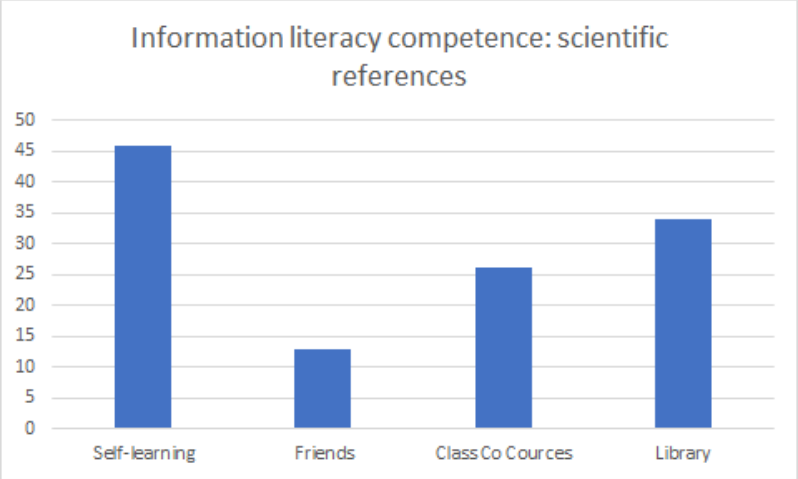

Fig 3. Strategies for Scientific References

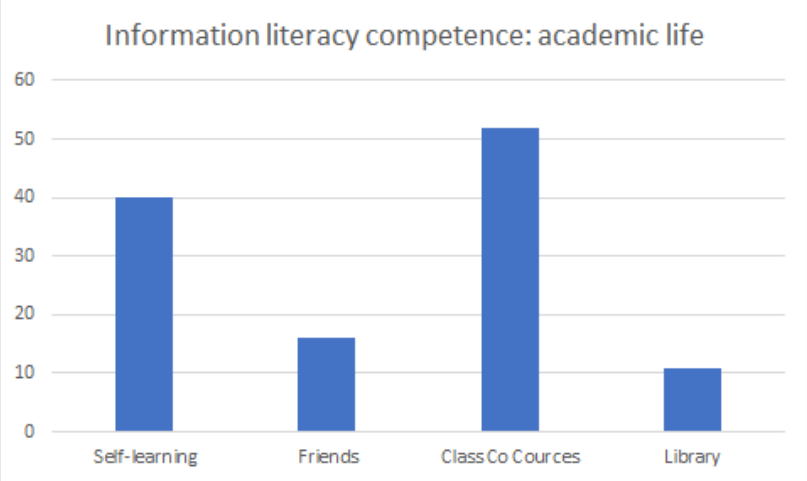

Fig 4. Strategies for Academic Life

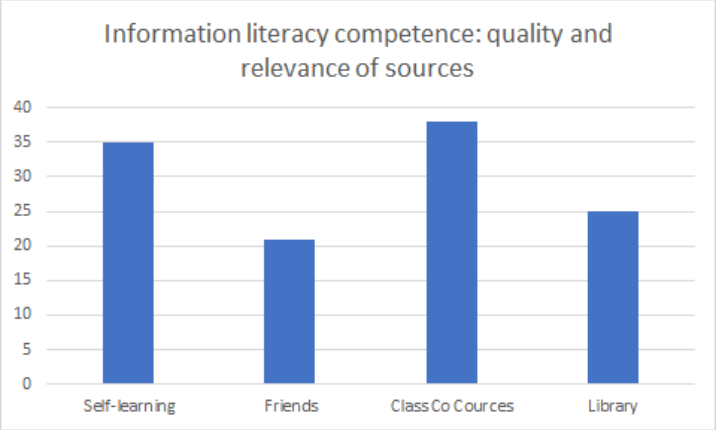

Fig 5. Strategies for Quality and Relevance of Sources

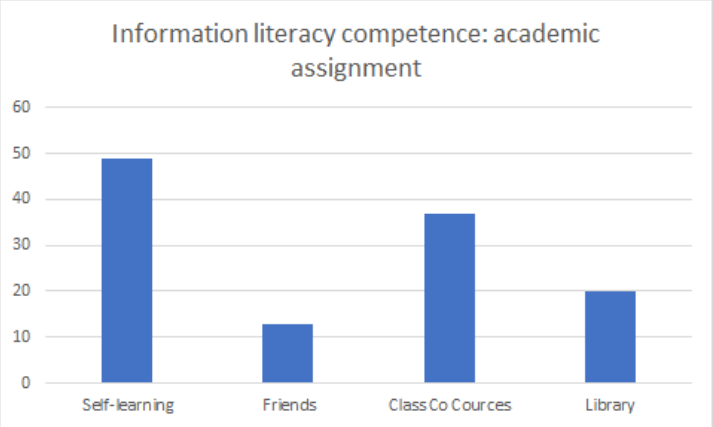

Fig 6. Strategies for Academic Assignment

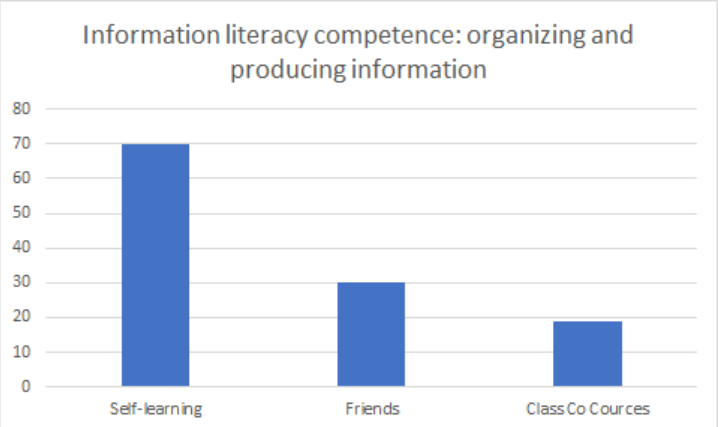

Fig 7. Strategies for Organizing and Producing Information

The first question of this research is to determine the level of student information literacy competency through self-assessment. Based on the processed data, respondents have the ability to search for information at a moderate level. The ability to search for information is correlated with the ability to evaluate information at a moderate level. Actually, the ability to obtain information and assess information is needed by students to get qualified information from internet sources [33]. With this ability, students can determine the quality and relevance of the information sources obtained. In supporting these two abilities, critical thinking competency are also needed to justify the information obtained [34]. The ability to obtain and evaluate student information at a moderate level is assumed to occur due to their limited exposure to information literacy competency.

Furthermore, data on the ability to process information and disseminate information shows that students have abilities at a moderate level. The student's ability to process and disseminate information correlates with the ability to obtain and evaluate information. The four indicators of information literacy competencies are interrelated so that if one ability is at a moderate level, the other competencies may also be at a moderate level. The findings of this study should be of concern not only to students but also to universities. Results from previous research have revealed that students are burdened with poor information literacy competency because they have problems finding the right reference sources to use the information as material for academic assignments [35].

Meanwhile, regarding research questions related to gender, this study found that females have better information literacy competency than males. On the other hand, non-Papuan students have a better competency in information literacy than other ethnic groups. The findings are in line with findings from previous studies that the ability of students to read and write academic texts is closely influenced by gender and culture [36]. Moreover, gender is also influential in acquiring information literacy competency [15, 16].

In addition, regarding the strategies of obtaining information literacy competency by students, self-learning is in the first place. This finding is interesting because the COVID-19 epidemic is thought for having an effect on student learning strategies, which initially focused on the lecturing method to self-learning. In the second place, the class co course role cannot be separated from the formation of students' information literacy competency. Through distance learning, students may learn information literacy competency. Other findings also indicate that the learning method with friends is an option for students to improve information literacy competency. Finally, the library is the last place for students to acquire information literacy competency. This situation may have occurred because, during the COVID-19 epidemic period, libraries in universities are restricted or shut down their services.

4 Conclusion

Based on this study, the self-assessment of students' information literacy competence during the COVID-19 pandemic in four tertiary institutions in Indonesia-Papua New Guinea border is at a moderate level. Continuous action is needed to respond to the findings of this study, considering the learning model has been transformed from face-to-face learning to

distance learning during the COVID-19 epidemic. In responding to distance learning, students need information literacy competency to participate in the learning process. Other findings also show that particular gender and ethnicity have better information literacy competency. On the other hand, the findings of this study also show that student's majority acquire information literacy competency by using the self-learning strategy. Long-term policies must be taken by the institution to optimize the role of libraries and teaching staff to improve students' information literacy competency. Policies can be pursued by improving the curriculum or creating a learning model to improve information literacy competency that are ethnic and gender friendly. Furthermore, the blended learning model has promising potential to be applied because of the limited infrastructure owned by students in participating in distance learning.

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The Ability of Geographic Teachers in Applying Authentic Assessment Through Online Learning

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Abstract. This study aims to determine the ability of geography teachers in high school to apply authentic assessment to class XI disaster mitigation materials . This study uses a quantitative approach. The parameters used to measure the teacher's ability in authentic assessment include 1) authentic assessment planning, 2) implementation of authentic assessment, 3) analysis of authentic assessment results. The sample in this study were geography teachers in Lampung Province from various districts who taught at public high schools in Lampung Province. The sampling technique uses area sampling technique . Data collection using a questionnaire. The research result shows that of 42 Geography teachers who are spread across several districts, their ability to carry out authentic assessments of online disaster mitigation materials is in a good category.

Keywords: Geography, Authentic Assessment, Mitigation.

1 Introduction

The focus of assessment in the 2013 curriculum is the success of student learning in achieving the specified competency standards, including attitudes, skills and knowledge. Students can be said to be competent after being assessed with instruments that are truly competent and relatively permanent, so that the information provided is truly accurate [1]. the assessment used based on the 2013 curriculum is authentic assessment. Permendikbud No. 10 4 of 2014 article 2 paragraph 2 states that authentic assessment is the main approach in assessing student learning outcomes by educators.

The assessment carried out includes the competence attitudes, skills and knowledge during the learning process. In authentic assessment, students are asked to apply a concept or theory in real terms according to their abilities or skills [1]. As a result of the Covid 19 Pandemic, Indonesia implemented Online Learning [2]. This condition is certainly experienced by all teachers in Indonesia. Online learning that is applied, apparently cannot be implemented optimally.

Teachers and students are still clueless about this learning model [3] . The problems faced by geography teachers during the COVID-19 pandemic, especially for authentic assessment, are the same thing faced by teachers in other fields of study, where teachers cannot directly monitor the learning carried out by students at home. For the assessment of attitude aspects, for example, the measurement of honesty, discipline, responsibility and so on, is only limited to being on time or not when submitting assignments, according to the deadline. Assessment of the spiritual aspect also cannot be maximized, because the teacher is not present in the midst of students praying to observe [4]. So far, what students do is send photos when they worship their teachers . But, it is also not accurate , that the students really worship

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setiapa day, so that online learning is sa Ngat difficult to measure aspects of honesty students. T duties as given dikumpukan sometimes not timely even some students who can not collect due to a weak Internet networks in the area where he lives. This condition certainly prevents teachers from immediately carrying out authentic assessments because they cannot immediately recap the value at that time. Not to mention being constrained by the internet network. If this is not done immediately , then at the end of the semester the teacher will be very difficult, because there are many grades that have to be added up.

In addition, the authentic assessment that has been carried out has not been maximized because the existing assessment techniques and instruments cannot be implemented in the learning process during the Covid 19 pandemic . The reason is because there is no instrument standard that is appropriate for the current conditions, so there are become teachers who use i nstrumen long time , there are also creative makes its instrument of accession itself.

2 Method

This study uses a single variable, namely the ability of teachers to apply authentic assessment in geography learning during online learning. The material used as the basis for the assessment is disaster mitigation material for class XI even semester. There are 3 indicators in this authentic assessment research, planning an authentic assessment, implementing an authentic assessment, analyzing the results of the assessment. Planning authentic assessment includes mene n tukan purpose and focus, planning contents authentic assessment that includes: the selection procedure of assessment, determine the content/topic and set the frequency da n time to assess, m endesain how to analyze data, namely by setting: standard or criteria, define how to integrate the assessment from various sources (eg from the performance, portfolio evaluation, test, etc) and set the time of analysis, planning measures assessment activities (integrated in learning, there are activities in providing feedback, process assessment and product assessment). Implementation of authentic assessment, announce covering purpose and focus of learning to learners, agreement assessment procedures used and the criteria of judgment, discuss ways that need to be done to achieve maximum results. Carry out assessment activities in accordance with the collective agreement planning (data collection).

Privide feedback. Analysis of the results of the assessment includes analyzing the data that has been collected, combining the results of the analysis from the various data obtained, applying the final assessment criteria and reporting the results of the assessment. The method used is descriptive quantitative. The population is a geography teacher who teaches online at public high schools in 13 districts of Lampung Province. Samples techniques are in use right is a sampling nonprobability use sampling area .

Table 1. Determination Of Samples Based On The Sampling Area

No	District	Population of Senior High School	10%	Sample School	Number of geography teachers in 1 school
1	Pringsewu	10	1	1	2
2	Tanggamus	15	1.5	2	4
3	South Lampung	17	1.7	2	4
4	Pesisir Barat	10	1	1	2
5	Pesawaran	13	1.3	1	2
6	East Lampung	19	1.9	2	4
7	Central Lampung	24	2.4	2	4
8	Mesuji	8	0.8	1	2

9	Tulang Bawang	15	1.5	2	4
10	Tulang Bawang Barat	14	1.4	1	2
11	Way Kanan	26	2.6	3	6
12	West Lampung	13	1.3	1	2
13	North Lampung	18	1.8	2	4
	Total	**202**	**20.2**	**21**	**42**

Obtained amount teacher who used a sample of 42 people. Options statement proposed in the questionnaire included 30 items item statement with alternative answers yes and tidak.Ya given a score of 1 and given a score of 0. The maximum score of 30, the lowest score of 0. Summary of the results of respondents wanted the average was calculated as follows: Average score = total score/number of question items. Furthermore, it is determined in the form of a percentage with the following calculation:

$$\text{Percentage Score} = \frac{\text{Average Score}}{\text{Ideal Score}} \times 100\% \quad (1)$$

Table 2. Categories Of Percentage

Category	Percentage
Well	76% - 100%
Enough	56% - 75%
Less good	40% - 55%
Not Good	4% - 40%

3 Research Results

The results of this study are used to describe how the authentic assessment of geography teachers in learning which contains disaster mitigation education material through an online learning process through aspects of planning, implementation and evaluation. The results of the study are shown in the tables below.

3.1 Authentic Assessment Planning

Table 3. Authentic Assessment Planning

No	Sub Indicator	Score	Percentage	Criteria
1	Make an integrated assessment plan referring to the syllabus and lesson plans	42	100	Well
2	Develop criteria for achieving basic competencies as a basis for assessment	42	100	Well
3	Determine assessment techniques and instruments according to the basic competency achievement indicators	42	100	Well
4	Make instruments based on the grid that has been made.	27	64,28	Enough
5	Analyzing the quality of the assessment instrument by referring to the instrument requirements and using the reference criteria	35	83,33	Well
6	Make plans for assessing student attitudes through self-assessment of students through timeliness in collecting the assignments given	42	100	Well

7	Analyze the quality of the assessment instrument by referring to the instrument requirements	42	100	Well
8	Set the weight of the assessment according to current conditions	31	73,8	Enough
9	Establish minimum scoring criteria	42	100	Well

3.2 Implementation of Authentic Assessments

Table 4. Implementation of Authentic Assessment

No	Sub Indicator	Score	Percentage	Criteria
10	Carry out assessment procedures that have been made.	42	100	Well
11	Guarantee that during online learning, there will be no cheating during the exam.	26	61,9	Enough
12	Checking the results of student work in the form of making videos of natural disasters based on the suitability of themes , clarity of images and sound.	42	100	Well
13	Follow up, students who have not submitted the assignment by providing allowance for 3 days.	23	54,76	Not Good
14	Provide retests for students with network limitations.	42	100	Well
15	Assessing student observations related to natural disasters in the area where they live in the form of project assignments.	34	80,95	Well
16	Assessing students understanding of the material types and distribution characteristics of natural disaster-prone areas in Indonesia.	42	100	Well
17	Assess students project task skills in making plans for evacuation routes for natural disasters in their area.	42	100	Well
18	Assessing students portfolio assignments in making clippings about natural disaster mitigation.	28	66,66	Enough
19	Assess how students read textbooks on disaster mitigation via submitted videos.	17	40,47	Less Good
20	Conducting enrichment assessments for students who get complete scores, by deepening disaster mitigation materials.	39	92,85	Well
21	Assess students' knowledge of disaster mitigation materials with essay questions.	11	26,19	Not Good

3.3 An analysis of authentic assessment results

Table 5. Analysis of Authentic Assessment Results

No	Sub Indicator	Score	Percentage	Criteria
22	documenting the value carefully and neatly	21	50	Less Good
23	feel overwhelmed by authentic assessments during online learning.	27	64,28	Enough
24	constrained by time in the assessment because students sometimes do not submit assignments on time	42	100	Well
25	still confused in making an authentic assessment instrument suitable for online learning	28	66,66	Enough
26	difficulty in applying attitude and spiritual assessments because of not meeting students directly	42	100	Well
27	feeling bored with too many points on the assessment so that he spent time sorting out these aspects which resulted in not	33	78,57	Well

	all of the learning in one day being completely implemented.			
28	not maximal in carrying out and compiling authentic assessments	32	80	Well
29	find it difficult to judge in a spiritual aspect	42	100	Well
30	The results of the assessment are returned Enough to students as feedback	26	61,9	Well

From the table results show that geography teacher who numbered 42 in the District in Provice the Lampung has been good at making plans penila he n authentically integrated manner deng 's referring to the syllabus and lesson plans. Develop criteria for achieving basic competencies as a basis for assessment. The basic competencies developed are analyzing the types and management of natural disasters through education, local wisdom, and the use of modern technology, as well as making sketches, plans and / or maps of potential disasters in the local area as well as disaster mitigation strategies based on maps. Geography teachers must also adapt to the characteristics of disasters that occur around students' environments. Determine assessment techniques and instruments according to the basic competency achievement indicators. Analyzing the quality of the assessment instrument by referring to the instrument requirements and using the reference criteria. Make plans for assessing student attitudes through student self-assessment through timeliness in collecting the assignments given. Assign the weight of the assessment according tothe current conditions. Establish minimum scoring criteria. Enough in m arouses instruments based right grilles that have been made, analysis quality assessment instruments with reference to the requirements of the instrument. Rubric is a scoring benchmark used in subjective assessment in the form of an explicit description of certain performance characteristics in a scale range. From these results it can be said that the authentic assessment planning carried out by geography teachers for disaster mitigation education material, is mostly in the good category.

For the implementation of authentic assessment, geography teachers are good at carrying out assessment activities using the assessment procedures that have been made. It is well in examining the results of student work in the form of making videos of natural disasters based on the suitability of themes, clarity of images and sounds. Both in give re-examination for students to network availability. This is done so that all students are getting value, because not all child's place of residence has awarded supplementary penuh. Test Internet network via whatsapp. Well assessment observations of student-related natural disasters in the region where he lives in the form of project tasks. Well assessment students' understanding of the material types and distribution characteristics of natural disaster-prone areas in Indonesia. Good in assessing student project task skills in making plans for evacuation routes for natural Disasters in their area. Good in conducting enrichment assessments for students who get complete scores, by deepening the material for disaster mitigation. It is enough to guarantee that during online learning, there will be no cheating during exams. Enough in Assessing students' portfolio assignments in making clippings about natural disaster mitigation. Less good in following up on students who do not collect duties by way of giving leeway time for 3 days or less anomalous both in m enilai how students read the textbook on disaster mitigation through the videos submitted. Not good in assessing students' knowledge about disaster mitigation material with essay questions, because teachers conduct assessments mostly using written assessments in the form of multiple choices for the domain of knowledge, few teachers use essay tests, because it can burden students in using the internet and takes a long time in do it. Overall the implementation of authentic assessments by geography teachers was in the good category.

The results of the authentic assessment of the geography teacher, namely, feeling bored with points on too many assessments so that they spent time sorting out these aspects which resulted in not all of the learning in one day being completely carried out [5] Both in less than optimal in carrying out and compiling authentic assessments. Not good at documenting values carefully and neatly. It is enough to feel overwhelmed by authentic assessments during online learning. It is enough to be confused about making an authentic assessment instrument suitable for online learning. It is enough that the results of the assessment are returned to students as feedback. Overall the results of the authentic assessment conducted by the geography teacher were in the good category.

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Analysis of Student Errors in Solving Analytic Geometry Questions During the Covid Pandemic 19

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Abstract. The Covid-19 pandemic has a very significant impact on the world of education in higher education. Online learning is applied as a solution for implementing the learning process. This study aimed to analyze and describe the mistakes made by students in solving analytic geometry problems. The analysis was conducted based on Newman's theory. This research is descriptive qualitative. The study was conducted at the Universitas PGRI Madiun. The research subjects were 63 students of semester IV, the Mathematics Education Program. Data analysis includes data reduction, data presentation, and concluding. The results of the research are the most mistakes made by students are comprehension errors (74.60%), transformation errors (20.63%), and encoding errors (3.17%). In this study, students did not make reading and processing errors. The mistakes made by students indicate the low understanding of students in analytic geometry online courses when Covid-19 pandemic.

Keywords: Error analysis, analytic geometry, pandemic covid 19.

1 Introduction

Mathematics is a learning material that plays an important role in the world of education. Simple mathematical principles to high-level mathematics can help someone solve problems faced in everyday life. In studying mathematics, the ability to think mathematically, systematically, logically, critically, and creatively is needed [1],[2]. So, it can be said that mathematics is a science which is the basis for the development of science and technology, because it can be widely applied in various fields. Mathematics has several branches, one of which is geometry.

Students of the mathematics education study program in Universitas PGRI Madiun are required to take courses in field analyte geometry in accordance with the established curriculum. In general, field analyte geometry is a combination of algebra and abstract geometry. By connecting mathematical equations algebraically with geometrical positions, a more systematic and firm method of solving geometric problems is obtained. Mathematics education students are required to be able to master basic competencies in every subject, especially analytic geometry, because they are prepared to become professional teachers. The mastery of students' basic competencies in the field analyte geometry course can be obtained through a learning process prepared by the lecturer. The learning process, which is usually done face-to-face in class, is now no longer conducive to doing. This is because the Covid-19 pandemic is happening in various countries, including Indonesia.

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The covid-19 pandemic has changed the paradigm of direct learning with the online system [2]. Changes in the learning paradigm during the Covid-19 pandemic are one of the government policies in the field of education as an effort to prevent the spread of the covid-19 virus that is too fast[3]. The spread of the covid-19 virus is too fast because a cure has not yet been found [4]. This becomes a new challenge for lecturers to be able to present an effective online learning process for students. Various attempts have been made to optimize the online learning process.

However, based on the results of the questionnaire data analysis, it shows that there are several obstacles faced by students during the online learning process of analyte geometry. The two main obstacles that arise are the unstable internet connection of students due to different regional conditions and the lack of students' ability to accept new knowledge given by online lecturers. This condition has an impact on the emergence of learning difficulties experienced by students. Learning difficulties are marked by certain obstacles to achieving learning outcomes [5]. Learning difficulties are not related to student intelligence, but are related to student difficulties in mastering learning skills [6]. Learning difficulties usually arise because students have not received complete knowledge [7].

In the analyte geometry course, learning difficulties experienced by students occur because students face complex processes in solving problems related to understanding concepts and formulas. This results in students making mistakes in solving the given math problems. The occurrence of errors when solving mathematical problems is very possible because there are errors when constructing concepts [8]. These errors need to be identified immediately through analysis activities so that they do not have an impact on allied subjects in the following semester. Error analysis is an investigation of a form of deviation or error from students' written answers [9]. Therefore, student errors in solving field analyte geometry problems can be analyzed from errors originating from student answer sheets. The analysis of errors in this study is based on Newman's theory, which consists of reading errors, misunderstanding, transformation, processes and final answers.

Previous research on error analysis in solving geometric problems by [10] has been carried out. The research was conducted before the Covid-19 pandemic, which applies face-to-face learning. During the Covid-19 pandemic, learning was carried out online. Research by [11]–[13] states that online learning has many weaknesses that impact students' ability to the material being studied. Therefore, we want to analyze student errors in solving analyte geometry problems in online learning during the Covid-19 period. This study aims to obtain information about the errors experienced by students in solving analyte geometry problems, which can be used to determine the weaknesses of learning online in terms of student abilities. The results of this study can later be used as a reference and material for consideration in designing online learning that is suitable for analyte geometry courses. Based on the results of research on error analysis, in the future lecturers can design a learning process that can help overcome student difficulties [14].

2 Methods

This research uses a qualitative approach with a case study model. The research was conducted at the PGRI Madiun University in the fourth semester students of the Mathematics Education Study Program who are currently taking the Analytical Geometry course. The research subjects consisted of 63 students. Determination of the subject based on the type of error committed. The main instrument in this study was the researcher, while the auxiliary

instruments were in the form of a circle equation problem-solving test and an interview guide. Data analysis techniques include data reduction, data presentation and drawing conclusions.

3 Result and Discussion

Error analysis is an activity of analyzing errors made by students in solving analyte geometry problems. The research subjects were 63 fourth semester students of the Mathematics Education Study Program of the PGRI Madiun University. Table 1. is the results of the error analysis on solving student analyte geometry problems.

Table 1. The results of the error analysis on solving student analytic geometry problems.

No	Type of Error	Percentage
1.	Reading error	0%
2.	Comprehension Error	74.60%
3.	Transformation error	20.63%
4.	Process skill error	0%
5.	Encoding	3.17%

Based on the data in Table 1. It shows that the errors made by students are comprehension errors of 74.60%, transformation errors, amounting to 20.63% and the final answer errors of 3.17%. In this study, students did not make reading errors and processing errors. Students do not experience errors reading questions. This strengthens the results of research [15], [16]. In general students do not experience errors in reading questions. Although in this study each subject worked online, based on the results of the answers all the information showed that students did not experience reading errors. In research, students also did not experience process errors. Process skill error is a student's mistake in choosing rules/procedures or students already using correct procedures/rules, but errors occur in the calculation or computation [16]. Students do not make mistakes in choosing or using problem solving procedures. Students also do not make mistakes in the counting process. This is because during the Covid-19 pandemic students studied online. Students work on the questions independently. This strengthens the results of research [17] that online learning can increase student motivation and learning independence.

Comprehension error is the type of error in which students have read the problem well, but do not understand the meaning of the question (eg cannot identify known and asked of the problem) [16]. Fig 1. is an example of misunderstanding by students.

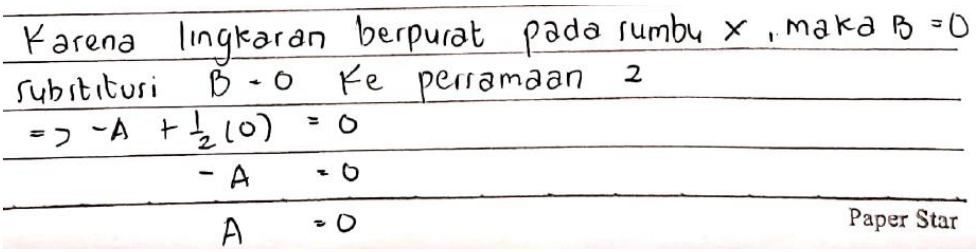

Fig. 1. The example of understanding error by students.

Fig. 1. students write that the circle is centered on the X-axis. In the problem it is clearly stated that the center of the circle is on the line. This shows that students do not understand the questions. Students experience errors in determining known information. Students have an understanding that a circle that is tangent to the X-axis is the same as a circle whose center is on the X-axis. students are able to read the questions correctly, but unable to determine the information they know correctly. Misunderstanding in this study dominates the mistakes made by students. Misunderstanding often occurs in the problem solving process. This supports the results of the research [15], [16], [18] that misunderstanding always appears in solving student problems. Students may have mastered the material being studied, but have not been able to implement it in solving the problems at hand. This strengthens the research [18]. This misunderstanding occurs because learning is carried out online so that students cannot face-to-face with the lecturer. This is in accordance with the opinion [11], [12], namely the weakness of online learning, namely students have difficulty understanding the subject matter which results in student understanding of the material less than optimal.

The application of online learning in analyte geometry courses has been for lecturers to upload material online in university e-learning. Students can access the material and study it independently. Then the lecturer provides feedback in the form of questions for students to work on and the results are uploaded to e-learning. During learning, students independently study the material, search for sources on the internet or discuss with peers. However, discussions with lecturers have not been carried out, so students are more likely to look for sources on the internet and have discussions with other friends. The results of the study [13] show that students experience difficulties in learning mathematics online. This allows students to have difficulty understanding the material being studied.

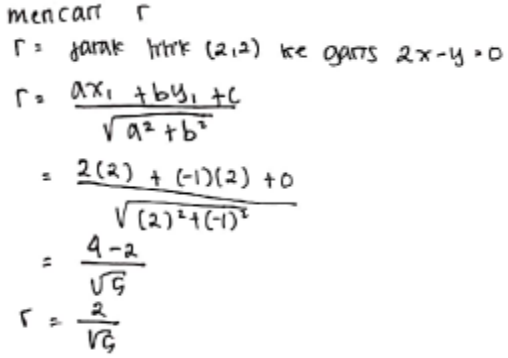

Fig 2: Examples of transformation errors

Subjects experiencing errors in transforming known information into mathematical equations. This is shown from the written statement, namely. This means that the radius of the circle is equal to the distance of the point (2,2) to the line. Thus students experience errors in transforming problems.

Transformation errors, namely errors caused by the failure of students to transform important information into mathematical equations. Transformation errors are caused by errors in understanding. The results of the study [10] show that students experience transformation errors in geometry due to poor understanding of the material.

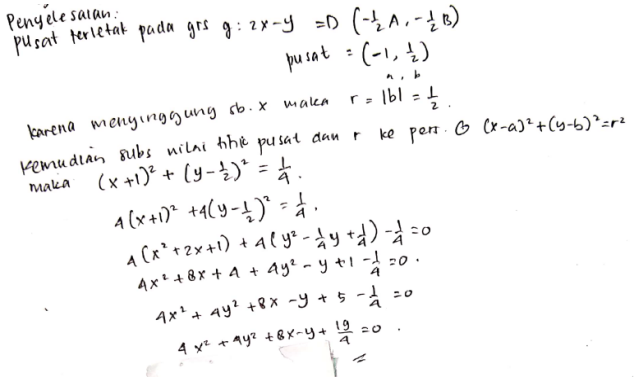

Fig 3: The Example of encoding errors

Encoding error that students make is when the subject determines the center of the circle. The subject of writing an equation for the center of the circle is, namely, the equation for the center of the circle for the general equation for the circle. The subject writes that the center of the circle is. This means that the subject made a mistake in determining the center of the circle. The center of the circle should still be in the form of a variable whose value is unknown. Furthermore, the subject substitutes the center point value and the radius value into the standard equation of circumference, namely. The choice of this equation is incorrect. This is because the center of the circle should be in the form of variable A or B, which of course does not fit the standard circle equation. Subjects cannot write solutions according to the completion procedure used. This error is called an encoding error. The results of this study contradict the results of research [10] that students do not make encoding errors in solving geometric problems. This research by [10] was carried out before the Covid-19 pandemic. Before the Covid-19 pandemic, learning was carried out face-to-face. This allows students to interact directly with lecturers or fellow students. Learning using online results in students being less maximal in understanding the material being studied [11], [12].

This study informed the students of misunderstanding, transformation, and encoding in solving analytic geometry problems. Learning that took place during the Covid-19 pandemic was online, using university e-learning. The learning design that has been implemented is that the lecturer uploads material in the form of powerpoints in e-learning. Students download the material and then study it independently. It allows students to experience errors in understanding the material. The lecturer gives questions related to the material being studied, and then the students upload the answers. This kind of learning design can cause difficulties for students, which results in students' understanding of the material less than optimal. The research result which conducting by [13], shows that in online learning, students do not accept the concept directly between teachers and students. When finding difficult questions, students tend to negotiate by accepting the situation or surrendering and being silent because of students' lack of understanding of the material studied through e-learning. In other side, [12], [19] stated that online mathematics learning is often ineffective due to poor internet networks, which impact on students' low understanding of the material. The study conducting by [20] One of the causes of difficulties experienced by students in online learning is the lecturers' unpreparedness, which includes inadequate explanations, the limited form of the material provided, and the limited applications used by lecturers in online learning. Analysis of student errors includes errors in understanding, transformation, and encoding in solving analyte geometry problems in online learning during

the Covid-19 pandemic. It is possible due to learning that takes place without face-to-face. Students learn the material independently in e-learning. The next cause is the lecturer's limited form of material and the limited application used by the lecturer. Besides, it is also indicated that there are internet network problems. For the next online learning, it is recommended that lecturers be more creative in designing learning by utilizing supporting applications, such as learning videos, google classroom platforms, zoom cloud meetings, and so on to make learning more effective [17].

4 Conclusions and Suggestions

The results of this study were errors made by students in solving analyte geometry problems including understanding errors (74.60%), transformation errors (20.63%) and encoding errors (3.17%). Students do not make reading errors and processing errors. This error was caused by the lack of students' ability to understand field analyte geometry material in online learning during the Covid-19 pandemic. Online learning designs during Covid-19 which need to be reviewed and innovated so that students can more easily absorb learning material.
Suggestions that can be implemented in relation to the results of this study are to immediately improve the learning design in analyte geometry courses. Presentation of the material was also more innovated so that students could more easily understand the analyte geometry material.

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Application of Lampung Traditional Dance Assessment Instruments in Rudat Dance Assessment

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Abstract. Assessment instruments in Lampung traditional dance have not been found for a long time, so that their application in learning arts has not been written and meticulous. The assessment instruments that have been used to assess Lampung traditional dances are Javanese indicators, namely wiraga, wirama, and wirasa. Based on previous research and writings, the assessment instrument for traditional Lampung dances has been analyzed and compared with the Javanese and Balinese assessment instruments. The research shows that there are similarities and differences between the three instruments from the three provinces. This paper intends to see the application of the Lampung traditional dance assessment instrument in the Rudat dance assessment, so that it can be seen how it works. Thus, this assessment instrument can be more qualified and stronger and the weaknesses and strengths can be identified and can continue to be improved. In addition, the existence of an assessment instrument for traditional Lampung dances also strengthens scientific knowledge in the field of assessment in the field of dance, especially in Lampung. With the existence of the Lampung Traditional Dance assessment instrument, it is also a Lampung identity that can be used as a reference in the development of an assessment of traditional Indonesian and international dances.

Keywords: Assessment instrument, Lampung traditional dance.

1 Introduction

Dance Education is a Sudi Program whose output produces prospective dance teachers or cultural arts teachers. In this case, the Dance Education Study Program of FKIP University of Lampung, which is the first Sendratasik Study Program in Lampung and is the only one in a state university (PTN). This certainly gives a big responsibility to the Dance Education Study Program to continue to preserve, maintain and develop cultural arts in Lampung, especially dance.

Lampung is a very unique province with a wide variety of crafts in it, both natives and immigrants. Of course this presents its own challenges for Lampung, how to maintain Lampung's original cultural arts and develop amidst the plurality of society. Apart from being a challenge, the diversity of cultural arts in Lampung is also an opportunity for research.

Researchers have not researched and written many cultural arts in Lampung. One of the urgent researches to be carried out is related to the assessment instrument of Lampung traditional dance. So far, both lecturers, teachers, and also research conducted using Javanese assessment instruments, namely wiraga, wirama, and wirasa [1].

The instrument for evaluating traditional Lampung dance has been found since 2015. However, it was only written in book form in 2016 and still needs continuous improvement until now [2]. As for indicators of assessment of traditional Lampung arts that have been found,

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namely, upo, bagho, and ghaso. This assessment indicator has been carried out a comparative analysis with the Java and Bali assessment indicators. Based on the results of the comparison, there are similarities and differences between the three instruments from the three provinces.

This Lampung traditional dance assessment instrument has indeed been invented and written and has been devoted to teachers throughout Lampung. However, its application in real Lampung traditional dance assessment has never been analyzed in more depth. For this reason, this paper intends to analyze how the application of Lampung traditional dance instruments to the assessment of Rudat dance, which is included in the type of traditional Lampung dance. By looking at the three elements, namely upo, bagho, and ghaso.

2 Research Methods

The R & D method focuses on the learning outcomes of Dance Education students by using traditional Lampung dance assessment instruments, namely upo, bagho, and ghaso. Description of quantitative data, namely the calculation of score from the results of the instrument trial to determine its validity and reliability, and supported by qualitative data from interviews and documentation [3].

3 Results and Discussion

Assessment (from a language point of view) according to Nurgiyantoro, the assessment is also determined by the current curriculum at that time [4]. However, according to Sudjana assessment is the process of determining the value of an object [5]. This means that the assessment is carried out after the object has done something that can be analyzed the results. The use of self-assessment is for decision making and for accountability for an activity that has been carried out. Assessment of dance learning outcomes is highly subjective. But if the assessment carried out is an assessment of her dancing ability (dances) in terms of the world of education, it is often called psychomotor abilities.

Psychomotor abilities do allow for subjective judgments to occur [6]. However, psychomotor assessments can be observed directly by following predetermined and established indicators as needed. If according to Sudarsono the assessment in dance includes three things, namely Wiraga, Wirama, and Wirasa, but this indicator is not necessarily acceptable and in accordance with Lampung traditional dance [7]. As an assessment, the Surakarta style dance is called Hasta Sawanda, which consists of Pacak, Pancat, Caterpillar, Luwes, Lulut, Wilet, Irama, and Gendhing. Broadly speaking, you can group Pacak, Lulut, Wilet including Wiraga, Pancat, Caterpillar, Luwes including Wirasa and Irama, Gendhing including Wirama.

Just as Java and Bali have their own indicators in assessing their dance as well as Lampung which also has its own assessment indicators. Namely upo which means a pose or body shape in the form of visible motion. Bagho means someone's ability to hear which is closely related to dance accompaniment for movement. Ghaso means suitability and sensitivity that a person has in harmonizing movements with accompaniment according to the concept of dance. Lampung's assessment indicators are also in line with the assessments used by teachers, lecturers, and student teacher candidates in assessing dance. Namely that the assessment of the dance at the time of the demonstration includes wiraga, which means the pose or body shape in carrying out the movement. Wirama means the suitability of dancing body movements with accompanying

rhythms. Wirasa means the suitability and harmony of body movements with accompaniment which is related to the intentions and roles of dance [6].

Rudat Dance is one of the materials in the Lampung Pepadun Dance course. Rudat dance itself is a traditional dance that has developed and is almost extinct in the area of Labuhan Ratu Village, East Lampung, Lampung Province. Rudat dance is usually danced by men at the night before the meghiyan ngarak event the next day [8]. This dance is performed as a form of entertainment and fills the night before the marriage ceremony is performed. This dance has only been taught this semester with courses which is also new in the 2019 curriculum.

As it is known, lectures in the even semester in 2020 were conducted offline for 5 meetings and the rest online. This certainly affects the form of the assessment carried out. If usually the assessment is carried out in person, this time the assessment is done virtually using videos sent by each student individually.

Fig 1. Students move the initial movements of the rudat dance

In **Figure 1**, it can be seen that students are dancing the initial movements of the Rudat dance. Based on the video sent by the student for this initial motion (motion 1), the student is good enough in moving the rudat dance. In general, as many as 37 students, almost all of them have been able to move this movement 1 quite well.

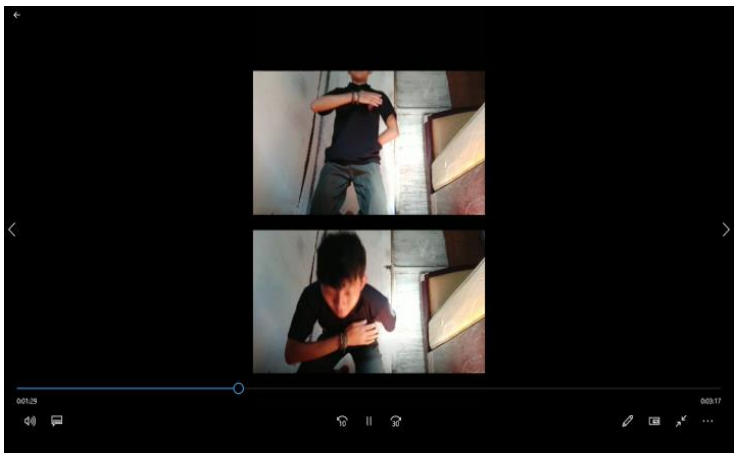

Fig 2. Students move the initial movements of the Rudat dance

In **Figure 2**, it can be seen that students are moving movement 3 in the Rudat Dance. In the picture, there are 2 slides, first the student sits and then the student stands on their knees which is done alternately. This movement should be carried out by more than one dancer so that you will see alternating movements. In accordance with the video sent by the students, it is in accordance with the motion technique 3 in the Rudat dance. In general, almost all students can move motion 3 according to their movement technique.

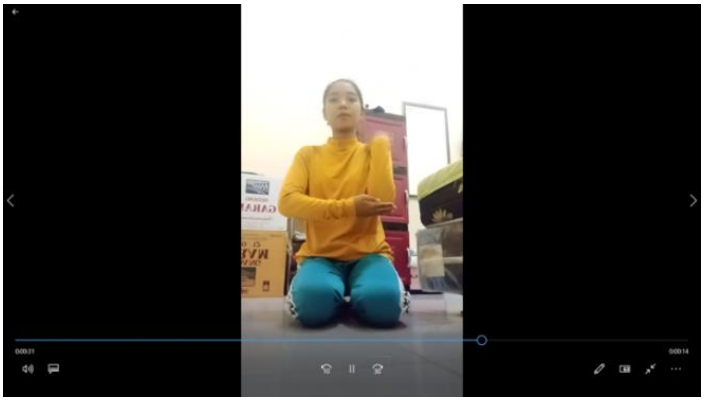

Fig 3. Students move motion 4 in Rudat Dance

In Image 3, it can be seen that students are moving motion 4 in Rudat Dance. Based on the video sent by the student, he has not been able to move motion 4 in the Rudat dance according to the movement technique.

In accordance with the video sent by the students, the upo indicator for memorizing the movements has been sufficiently mastered, but the techniques have not been mastered well. For bagho, the tempo and rhythm of the movements carried out are still not in accordance with the tempo and rhythm of the rudat dance. Likewise for ghaso, students have not been able to harmonize the abilities of upo and ghaso.

Table 1. Student scores with the Upo indicator

NO	NPM	NAME	UPO
1	1913043001	Indika Oktafiani	63
2	1913043002	Elda Savira	78
3	1913043006	Diana Mai Sari	60
4	1913043007	Etika Witantri	61
5	1913043008	Sairul Anwar	61
6	1913043009	Ahmad Faisal Akbar	73
7	1913043011	Retno Anisa Putri	65
8	1913043017	Okta Berliana	75
9	1913043018	Denta Pramana Putra	76
10	1913043021	Rara Ardelia Artanti	67
11	1913043023	Nehemia Setia N	60
12	1913043026	Ikhsan Taufiq	80
13	1913043036	Laila Wafiq Azizah	60
14	1913043041	Anggun Trishia U H	65
15	1913043042	Nyimas Sekartaji K	60

Based on table 1, it can be seen that a sample of 15 students with upo indicators varied widely in the distribution of values. It can be seen that the student with the highest score is 80 with quality letter A. The lowest score is 60 with quality letter C +. With an average of 66, 93. Based on this, it can be seen that the students' ability to dance the rudat dance upo is quite good and must be continuously improved. Capacity building can be done by continuing to practice the Rudat dance movements regularly.

Table 2. Student scores with the Bagho indicator

NO	NPM	NAME	BAGHO
1	1913043001	Indika Oktafiani	63
2	1913043002	Elda Savira	80
3	1913043006	Diana Mai Sari	63
4	1913043007	Etika Witantri	63
5	1913043008	Sairul Anwar	62
6	1913043009	Ahmad Faisal Akbar	80
7	1913043011	Retno Anisa Putri	66
8	1913043017	Okta Berliana	77
9	1913043018	Denta Pramana Putra	78
10	1913043021	Rara Ardelia Artanti	70
11	1913043023	Nehemia Setia N	63
12	1913043026	Ikhsan Taufiq	80
13	1913043036	Laila Wafiq Azizah	62
14	1913043041	Anggun Trishia U H	65
15	1913043042	Nyimas Sekartaji K	62

In table 2, it can be seen that students' dancing abilities with the bagho indicator. Based on the table, it can be seen that the highest value on bagho ability is 80 with the letter quality A. the lowest value is 62 with the quality letter C +. With the average obtained, namely 68.93. Based on the scores listed in the table, it can be said that the students' dancing ability on the Bagho indicator is quite good and the average is higher than the UPO indicator. However, the meanri ability of students must continue to be improved by practicing.

Table 3. Student scores with the Ghaso indicator

NO	NPM	NAME	GHASO
1	1913043001	Indika Oktafiani	67
2	1913043002	Elda Savira	74
3	1913043006	Diana Mai Sari	63
4	1913043007	Etika Witantri	70
5	1913043008	Sairul Anwar	70
6	1913043009	Ahmad Faisal Akbar	75
7	1913043011	Retno Anisa Putri	70
8	1913043017	Okta Berliana	74
9	1913043018	Denta Pramana Putra	76
10	1913043021	Rara Ardelia Artanti	70
11	1913043023	Nehemia Setia N	65
12	1913043026	Ikhsan Taufiq	80
13	1913043036	Laila Wafiq Azizah	65
14	1913043041	Anggun Trishia U H	67
15	1913043042	Nyimas Sekartaji K	62

Table 3 shows the students' dancing abilities with the ghaso indicator. Based on the table above, the highest score obtained by students is 80 with the letter quality A. The lowest score obtained by students is 62 with the letter quality C +. The mean obtained by students on the Ghaso indicator is 69.86. Based on the value obtained according to the table above, the dancing ability of students on the Ghaso indicator is quite good with a higher average than Upo and Ghaso. This means that students have actually been able to harmonize the movements and the tempo and rhythm of the movements according to the characteristics of the Rudat dance.

4 Conclusion

The results of the development research that have been carried out can be concluded as follows:

In the preliminary study phase, it was found that the analysis of the implementation of the assessment of traditional Lampung dances so far still used Javanese dance assessment instruments, namely wiraga, wirama, and wirasa. Lecturers, teachers, and prospective cultural arts teacher students do not really know and understand the Lampung traditional dance assessment instruments, so it is necessary to do socialization regarding this matter. This limitation makes lecturers, teachers, and students still use Javanese indicators to this day.

The product that was developed was an assessment instrument for traditional Lampung dance which was seen by its application in the assessment of the Rudat dance, which is one of the traditional dances of Lampung. Based on the research that has been done, Lampung traditional dance instruments are very suitable to be used to assess Rudat dance. The upo, bagho, and ghaso indicators represent indicators to assess the dancing abilities of students. This can be seen from the results of the assessment using the Lampung indicator, which shows that student scores are varied with an even distribution.

The validation of the Lampung traditional dance assessment instrument was carried out through expert testing of content validity and construct validation. The results of the assessment obtained from expert validation state that this performance appraisal is appropriate for use as a form of assessment in Lampung traditional dance. However, the reliability test needs to be done to strengthen the traditional Lampung dance instruments that have been found. Thus, this assessment instrument can continue to experience improvement and can be used in all assessments of traditional Lampung dances and no longer "meminajm" Javanese indicators. In addition, the better and stronger the traditional dance assessment instruments in Lampung provide opportunities for the development of assessment instruments for Indonesian traditional dances and international dances.

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The Geography Teaching Material for Senior High School Student's Creative Thinking

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Abstract. Students with creative thinking skills shall be able to solve problems swiftly and properly and able to face various challenges in life. The objectives of this research to produce geography teaching material for grade X to make students think creatively. This research used stages in a research and development method developed by Dick and Carey. Validation tests to determine teaching material properness were done by Indonesian language expert, teaching material expert, and design expert in small and big test groups. Data were analyzed by using statistical descriptive analysis with percentage. The result showed that the geography teaching material for senior high school students was effective to use in learning by 92% average effectiveness score. The test results in small group showed average effectiveness by 88%, and students' creative thinking results were 9% very good, 88% good, and 13% enough, with creative thinking skill average score of 75. The test results in big group showed average effectiveness by 86%, and students' creative thinking results were 15% very good, 80% good, and 53% enough, with creative thinking skill average score of 76.

Keywords: Teaching materials, Dick and Carey model, creative thinking.

1 Introduction

Teaching students by using teaching materials that make them think creatively so far have not been yet running properly, because basics of creative thinking is not yet mastered, both in elementary and higher levels. This is in line with Rofi'uddin that student's creative thinking skill is still low in elementary and higher levels [1].

The importance of student's creative thinking skill includes that students shall be able to solve problems swiftly and properly, and they were able to face various challenges in life [2]. The senior high school students are cognitively in a stage to think operationally and formally starting from age 11 years and higher [3]. At those ages, students develop their cognitive ability to think in abstract way. They also think rationally or scientifically to solve a problem.

Types of teaching materials are differentiated into some grouping criteria. According to Koesnandar teaching materials based on their subjects are (a) teaching materials purposively designed to learn such as books, handouts, student's work sheet and module; (b) undersigned teaching materials that are used to for learning such as newspaper clippings, newspaper, movies, advertisements and news [4]. Based on this, teaching materials can be divided into written (i.e. books) and unwritten ones (i.e. movies).

The analysis result done by Cahyaningtyas [5] to geography teaching materials for grade X of senior high school showed that there were 153 errors in punctuation marks, 104 vocabulary mistakes, 161 sentence mistakes, 21 paragraph mistakes, 60 concrete concept mistakes, and 10

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defined concept mistakes. This indicates that there were many mistakes in the teaching materials so that students were difficult to think creatively and this teaching materials needed an immediate betterment. The less clear concept in the first semester of grade X senior high school text book that makes students are not yet able to think creatively is described as follows:

Utility value concept; the utility value of phenomena on earth is relative, not the same for all people or some particular group of people. A sloping sandy coastal area with clear water is not necessarily having utility value for local inhabitants. This is because the local inhabitants are oriented to use resources on land. Oppositely, for urban people who live in prosperity and in dense area, coastal area would have a high utility value for recreation and tourism [6].

This is an abstract concept with unclear definition. Each student would interpret the information provided in this concept differently. This condition makes incomplete concept understanding and students would have difficulties to understand that finally causes reluctantness t learn and less creative thinking. The concept should be defined clearly with a clear example.

The objectives of this research to produce geography teaching material for grade X to make students think creatively.

2 Research Method

This research used procedural model to describe the plot to produce geography teaching materials for grade X to make students think creatively [7].

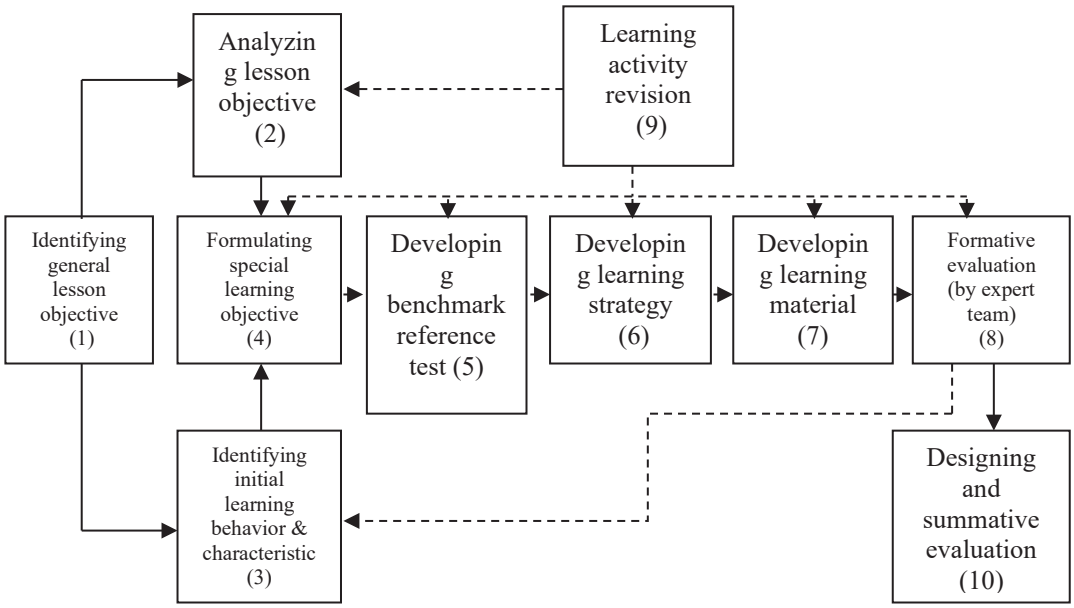

Fig. 1. Dick and Carey model development design [7]

Subjects to test this research and development products were: 1) expert teams containing of field study expert, linguists, and design expert; 2) small group containing of 6 students from NU Islamic Senior High School in Tanjungkarang of Bandar Lampung. These activities were to obtain responses of the substances, to determine properness from language and presentation

aspects, and to identify problems in understanding teaching material. The small group test was conducted in January 2020; 3) big group test in Public Senior High School 5 with 32 students.

Instruments to collect data in this research were: 1) questionnaires given to experts, and then experts' inputs were made for basics to revise teaching material product; 2) questionnaires to assess product acceptance by teachers and students; 3) essay problems to find out students' thinking skill abilities.

Data were analyzed by using percentage statistical descriptive analysis. This analysis processes data from field test; the questionnaires and essay problems (to measure creative thinking ability). Questionnaire data were processed by using Likert scale criteria. Percentage of each subject answer is estimated by using the following formula:

$$\text{Percentage} = \frac{\sum \text{Total score of questionnaire answer}}{\text{n} \times \text{highest score} \times \text{total students}} \times 100\% \quad (1)$$

n = number of problems

The following setting is used to interpret and to make decision.

Table 1. measure creative thinking ability

Accomplishment level (%)	qualification	description
86 – 100	Very efficient	Not revised
71 – 85	Efficient	Not revised
56 – 70	Efficient enough	Revised
0 – 55	Less efficient	Revised

Source: Sugiyono [8]

The following formula is used for estimation and criteria to interpret student's creative thinking ability data:

$$\text{Creative Score} = \frac{\text{Score obtained by Student}}{\text{Maximum score}} \times 100\% \quad (2)$$

Creative thinking ability is differentiated into three criteria: 81 - 100 (very good), 61 - 80 (good), 41- 60 (enough), 21-40 (poor), and 0 - 21 (very poor) [9].

3 Research Result and Development

3.1 Validation of Geography Substance

The assessment result by geography substance expert is presented in Figure 1 below.

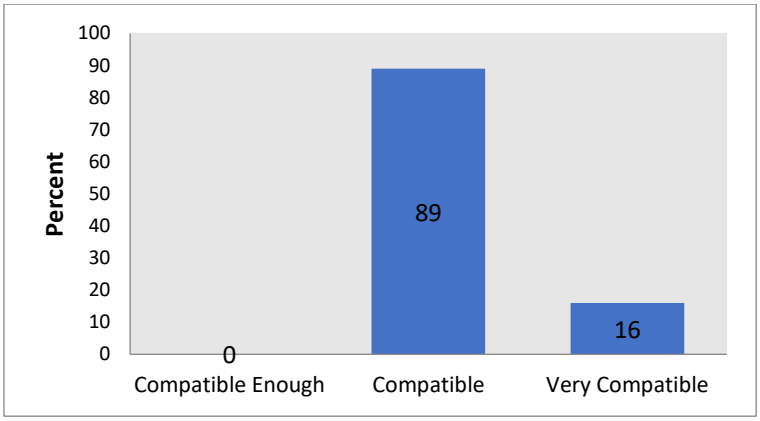

Fig. 1. The assessment of geography teaching material as result of development product by geography content/substance expert

Assessment result by teaching material expert (Figure 1) shows that 11% geography teaching material as result of development is very compatible and 89% is compatible. Total assessment score is 4.1 (82%) from 1 to 5 scale, so that the teaching material is proper and efficient to use for learning with efficient category.

3.2 Indonesia Language Validation

The validation result of Indonesia language is presented in Figure 2 below.

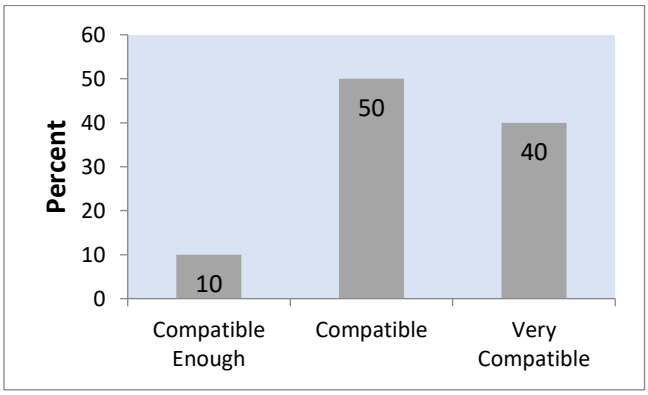

Fig. 2. The Indonesia language assessment of geography teaching material as result of development product by Indonesia linguist

Assessment result by Indonesia linguist expert (Figure 2) shows that 40% geography teaching material as result of development is very compatible and 50% is compatible. Assessment score by Indonesia linguist is 4.1 (82%) from 1 to 5 scale, and it indicates that the geography teaching material is proper and efficient to use for learning with efficient category.

3.3 Design Validation

The assessment result by design expert is presented in Figure 3 below.

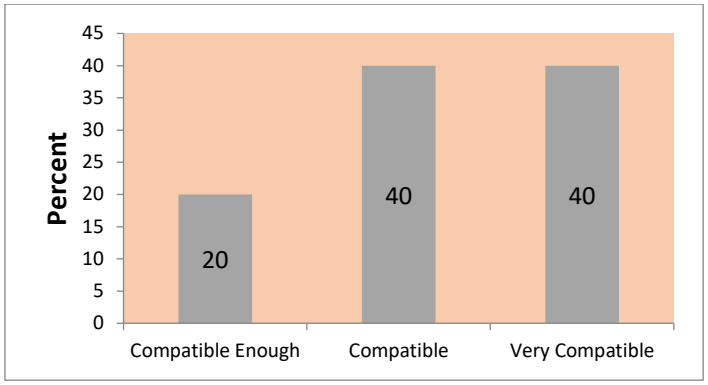

Fig. 3. The assessment result of geography teaching material as result of development product by design expert

The design expert assessment results (Figure 3) are that the geography teaching materials are 40% very compatible, 40% compatible, and 20% compatible enough. Total score is 4.0 (80%) from 1 to 5 scale. This result indicates that the geography teaching material is proper and efficient to use for learning with efficient category.

3.4 Testing Result in Small Group

Data of testing result of the teaching materials in small group are presented in Table 2 below.

Table 2. Students' responses to the critical thinking-oriented geography teaching materials to test in a small group.

No	Item	Score							
		2	%	3	%	4	%	5	%
1	Cover/layout attractiveness			3	20	6	40	6	40
2	Procedure sequence order in each chapter					8	53.3	7	46.7
3	Inter-chapters procedure sequence order					9	60.0	6	40
4	Concept understanding easiness					7	46.7	8	53.3
5	Easiness in finding concept application					8	53.3	7	46.7
6	Easiness in answering questions					10	66.7	5	33.3
7	Easiness in finding questions					6	40.0	9	60.0
8	Very attractive figures			4	26.7	5	33.3	6	40

Descriptions 1 = improper, 2 = less proper, 3 = proper enough, 4 = proper, 5 = very proper

Table 2 shows that students' responses on cover/layout attractiveness are 40% very proper and 40% proper. Students' responses on easiness in answering questions to think creatively are 33.3% very proper and 66.7% proper. In general, students' responses upon 8 questions that the researcher asked, they said 48.3% proper and 39.4% very proper. Table 4.7 shows that total score students' responses to the geography teaching material in small group test is 83.2%

(obtained score 811 divided by maximum score 975). This indicates that the geography teaching material is proper and efficient to use for learning with efficient category.

3.5 Testing Result in Big Group

Data of creative thinking were collected from essay problem instrument of creative thinking-oriented geography teaching materials for grade X. Creative thinking data are comprised of think fluently, flexible thinking, detailed thinking, and thinking to find out new ideas [10].

Creative thinking can be elaborated into 4 indicators; (1) fluency (an ability to produce many ideas), (2) flexibility (an ability to produce various ideas), (3) originality (an ability to produce new ideas or ideas that never been before), and (4) elaboration (an ability to develop or add ideas to produce detailed ideas). These 4 indicators data are presented in Table 3 below.

Table 3. Percentage of creative thinking indicators of students in Public Senior High School 5 in Bandar Lampung.

Score	Fluency	Flexi-bility	Origi-nality	Elabo-ration	Σ	%
4	45	10	0	25	80	19.6
3	54	83	39	64	240	58.8
2	3	8	60	11	82	20.1
1	0	1	3	2	6	1.5
Σ	102	102	102	102	408	100

Description: Score 4= very creative, 3= creative, 2= creative enough, 1= not creative.

Table 3 describes obtained percentage of creative thinking indicators of students in Public Senior High School 5 in Bandar Lampung. There were 34 students and each of them did 3 problems (chapter I: one problem, chapter II: one problem, and chapter III: one problem). Each problem had 4 indicators, and each indicator had score 1 to 4, so that there were 408 items (34 students x 3 problems x 4 indicators).

Percentages of creative thinking indicator distribution (Table 2) show that 58.8% students got score 3 (creative). Flexibility shows the highest score by 83, meaning that students could answer questions more flexible and freer. Students are able to develop their own alternative answers to the problems given. The lowest score is originality indicator, where students find difficulties in finding new ideas. This is because they are still in practicing stage, seldom getting guidance and trained to think to find new ideas. It accordance with the opinion of Ferede, that student are curently not being guided to think creatively Teachers so far have been training students concerning memorizing, history, and calculating [11]. Fluency indicator shows that students are fluent to answer problems given to them. They are able to express many vocabularies related to the given problems. In elaboration indicator students are able to answer the given problems in detail.

4 Discussion and Recommendation

4.1 Product Superiority

a. The geography teaching materials were validated by expert team consisting of design expert, geography expert, and linguist of Indonesian language.
b. The geography teaching materials had been tested to small and big groups.

c. The geography teaching materials emphasize student's creative thinking and support scientific method.
d. Problems related to creative thinking are more contextual with clear figures.

4.2 Product Weaknesses

a. The geography teaching materials do not yet emphasize on proper learning strategy or model to obtain creative thinking.
b. The geography teaching materials are designed for one semester, where ideally these must be designed for two semesters.
c. The geography teaching materials were tested only in Bandar Lampung town.

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Investigating Constraints and Strategies Faced by the Non-English Students in Answering Reading Comprehension TOEFL Test

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Abstract. Test of English as a Foreign Language (TOEFL) is widely used as a measurement for standardized foreign language students. One of the sections in TOEFL assessed as the part considered by the students is reading comprehension Non-English students surely have the power to accomplish TOEFL test, especially the reading section, even though there may be some struggle or constraints they face. Descriptive qualitative research design was implemented in this study in order to investigate the constraints and strategies in accomplishing reading comprehension on the TOEFL test. The totals of participants were 18 students who have passed the ITP TOEFL test. The results indicate there are three most aspects regarding to the students' struggles of answering the question of reading comprehension, those are vocabulary limitations, hard to find the specific information on the passage, and troubled to identify some features, such as tone, objectives, or course in the passage. Aside from this, any strategies definitely composed to adjust those constraints. Further explanations would be elaborated in this paper. The results of this study would be impeccable to give any suggestions for the students or teachers to upgrade their understanding of the TOEFL test on reading comprehension.

Keywords: Constraints, ITP TOEFL, non-English students, reading comprehension, strategies.

1 Introduction

In the Education system, reading comprehension is one of the learning parts to get more information from text related to the subject matter. As supported by Grabe, reading in an academic context as a part of learning that requires the students to have the ability in reading and construing the text based on the task in order to achieve the learning outcomes arranged by the teachers [1]. It indicates that the students are required to consider with their competence to incorporate, assess, and be selective carry out the information from the text they read. To measure the students; ability in reading comprehension, the teachers assess it by a test. Since having a proficient ability in English is crucial, therefore, TOEFL is widely used as a measurement or a test for a standardized foreign language students' capability. By the same taken, TOEFL is also used as the main requirement for having a decent job. Aside from those reasons, the domestic universities mostly employ this standardized to be used as a condition for determining whether or not the student can graduate. Similarly, TOEFL is required as a test to ensure the students' competence or skill who thoroughly learn English as a second language [2].

Specifically, the ITP TOEFL test has three sections, which are different from the iBT TOEFL test; those are listening skill, structure and written expression, and reading comprehension test. The score of the last section on the TOEFL test would exceptionally affect

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the determinant test score. Briefly, having intelligence on reading comprehension is necessary to achieve a satisfactory score [3]. Conversely, reading comprehension assessed as one of the students' difficulties especially in the TOEFL test. As stated by Anjomshoa & Zamanian, among the three tested sections, reading comprehension defined as the foremost aspects on TOEFL test [4]. The students in which the unfamiliar words are commonly there could face this reading section as the obstruction. By the taken, the length and tedious passages are written mostly induced the constraints. Phakiti states that there are some examples of implementing strategies in reading; focus on main idea, skimming, scanning, and guessing [5].

Generally, the TOEFL final score frequently put as a provision in term of academic necessity to measure the students' English skills. It takes an example of the students to intend to continue their Education whether in abroad or not, the university will absolutely ask for their TOEFL certificate or provide own requirement of students' score submission as the requirement for the students' English proficiency. Nevertheless, it is currently utilized as the requirements for the graduation examination and applying for occupation or work at some particular institution. Since this kind of proficiency English test has several advantages for among the scholars, therefore, especially non-English students, they mainly have more power to accomplish the TOEFL test. Even though, in learning English, there some struggles and constraints may they face. In sequence, it is imperative to comprehend what kind of difficulty they faced, in terms of the reading comprehension section in the test, then how to deal with those difficulties.

Furthermore, based on the statements of the problem above, this study tried to investigate the constraints and strategies arraigned by the non-English students on reading section in ITP TOEFL test, then specifically focus on the non-English students who have passed ITP TOEFL in which it is more generally applied in the Indonesian context.

2 Literature Review

2.1 Headings, tables and figures

The Test of English as a Foreign Language (TOEFL) is the most needed English language test in the world by the reason of it recognized by more than 10.000 colleges, universities, and agencies for about 130 countries. Then, TOEFL scores are accepted by more than 7.500 colleges, universities, and licensing agencies in over 130 countries which requires it as the evaluation of the learners' English proficiency (ETS,2009). TOEFL is an English language test that is highly and internationally acclaimed and recognized [6]. By the same taken, Kurasi has an opinion that TOEFL is the test for evaluating an individual's ability to understand and practice English [7]. It is one of the most important factors to determine whether international students are successful in academic performance or not. Currently, the TOEFL test is required on many occasions; it takes an example of the students who eager to continue their study abroad surely have to own the TOEFL certificate. Similarly, it also needs for the alumnus to find a job either in their country or abroad.

Abboud and Husein concluded that the TOEFL test is defined in two kinds. Firstly, International Testing Program consists of (TOEFL CBT (computer-based), and TOEFL PBT (paper-based). The seconds is Institutional Testing Program is composed into Pre-TOEFL (paper-based) and TOEFL ITP (paper-based) [8]. This study focuses on ITP TOEFL in which three skills are tested; listening, structure, and reading where 677 is the highest, and 217 is the lowest score. Listening part consists of three parts; short dialogues, long conversations, and talks

involving 50 questions. Next, the structure section consists of 40 questions divided into the structure and writing expression. Then, reading as the last section consists of five passages and 50 questions [9].

2.2 Reading Comprehension on TOEFL

Reading categorically claimed as the interaction both the reader and passage [10]. In term of education system, especially English teaching, reading is the foremost skill since it provides students' understanding of gaining the information [11]. Construction in this term means that the students understand the passage when they can grasp the information from the text [12]. Therefore, reading comprehension is the learners' knowledge on the written text and the whole content or aspect accomplished in the passage [13],[14].

Nuttal classified five aspects of reading comprehension which are better to comprehend; finding the main idea, understanding the reference, determining inference, detailed information, and having much vocabulary [15]. In detail, Phillips also categorized those five aspects into 13 skills. The first is finding the main idea assesses on how to locate and recognize it correctly. Secondly, answer the questions investigating the ability to recognize the detailed information, unstated statement, and pronoun reconciliation. Next, the capability to respond to the implicit and transition questions. Fourthly, regarding to the vocabulary knowledge, it also emphasizes on four skills (structural clues meanings, word parts, and identifying the difficult sense based on the context). The last skill is the potential to determine the specific information from the text including tone, objective, and course as well [9].

2.3 Constraints on Reading TOEFL Test

Difficulty, constraint, or struggle is any condition when the students are complicated to understand the passage and answer the question in reading the TOEFL test. According to any result of experts' study, most of the students compose any struggle in reading comprehension caused by any reasons, limitation of understanding the whole text is one of the factors [14]. Limited vocabulary and some phrases can prevent the learners to understand the whole text [12]. Similarly, Oktarina of his study found that locating the main idea, implicit and unmentioned answer, and vocabulary matters are belonging to constraints in TOEFL assessed by the sixth-semester English students [3]. In another study, Chawwang found three frequently difficulties found; read any unfamiliar words, cannot identify the topic and vocabulary limitedness [16]. However, Mahmud who involved the sample from non-English students conducted the struggle faced by the students caused by any problems, such as reported by in this research [17]. The result shows several incomprehensions as inadequate English basic ability, lack of English training, and different conditions including age and social status.

2.4 Strategies in Answering Reading TOEFL Test

Aside from the previous part, to cope with those constraints, the strategies should be implemented, such as summarizing, generating the questions well, applying skimming and scanning methods [9]. The use of strategy and efficacy obviously influenced by the sutdents' proficiency level of reading. Carrell and Grabe underlined the importance of vocabulary knowledge in reading the English text and noted the non-native students' ability in guessing the words, notably when the texts are too complicated [18]. Consequently, Skehan has noticed that the text could be the big obstacle for the non-native readers, it obviously seen that the passage commonly too long and the questions may be hard to understand [19]. The non-English students

are surely able to implement those strategies to answer the questions in the reading TOEFL test. Samad et al. concluded that reading strategies are considered as the crucial component to fully understand the whole text and resolve the obstacles face [20].

3 Methods

3.1 Research Design

This research was conducted based on a descriptive qualitative method with two central points on the constraints and strategies encountered by the non-English students answering reading comprehension in the TOEFL test. This research was categorized as descriptive since it analyzed the phenomenon or the perception towards reading skill on TOEFL, consequently, the result would be described or showed descriptively. Correspondently, Kirk and Miller [21].

Qualitative research design claimed as the socially tradition on social where it crucially depends on the human activity between their circumstances and terminology term. Since this research investigates the students' perception, it can be categorized as qualitative referring to people's observation. Then, the object that was assessed or analyzed can be observed with the senses, Furthermore, to collecting the data, the questionnaire was distributed through the internet by Google form as media for the participants to respond all of the questions. The respondents were treated with enough time for filling out the questionnaire. Next, the data gathered from the questionnaire would be descriptively analyzed and revealed in the table, then following by a clear explanation.

3.2 Participants

This study was involving 18 non-English students selected from various universities in Indonesia who have been done the TOEFL test and own the qualified certificate. The participants were selective purposively in which the researcher has the requirement to enfold them as the participants. Purposive sampling is a non-probability sampling method in which the researchers chose sampling units based on his assessment or judgment of what the unit will facilitate investigation [22]. The distinctive characteristic for choosing the respondents was the learners who have passed the TOEFL test in an appropriate score. The specification of the TOEFL level score proposed by Carson et al. [23];

Table 1. TOEFL Classification Level

No	Classification Level	Score
1	Elementary	310-420
2	Lower Secondary	421-480
3	Secondary (High Intermediate)	481-520
4	Advanced	521-677

Then, the researcher chose the students who are in the range score of high intermediate since it is more suitable than other levels in which they supposed to possess good ability in English.

3.3 Instrument

The instrument is the foremost part of the research used to collect the data. In this study, a questionnaire that had been developed by the researcher was used as the instrument to require

the data. The theoretical foundations needed to be adapted in arranging a list of the questions in which all of them were based on the theory or quoted [15],[24]-[26]. The questionnaire includes open and close-ended questions to gain more proper answers.

4 Results and Discussion

4.1 The students' constraints

The following table below presents the constraints faced by the non-English students dealing with the questions of reading comprehension ITP TOEFL test.

Table 2. The constraints on reading comprehension TOEFL.

No	Statements	Strongly Disagree	Disagree	Strongly Agree	Agree
1	I have limitated vocabulary, then it is hard to understand the text.	11,1%	5,6%	5,6%	77,8%
2	I know the meaning whether it is mentioned or unmentioned in the passage.	-	27,8%	5,6%	66,7%
3	I cannot locate the main idea	11,1%	44,4%	44,4%	-
4	It is difficult to locate reference which is asked in the passage	5,6%	55,6%	-	38,9%
5	It is hard to find out the meanings from structural clues	5,6%	50%	-	44,4%
6	I do not know how to look for some particular information.	-	11,1%	5,6%	83,3%
7	I have no ability to determine the text's tone, aim, or couse.	5,5%	-	72,2%	22,2%

Table 2 covers all of the possible constraints of answering the questions on reading. The first is the non-English students got difficulty understanding the passage because of a lack of vocabulary which is proved by the 77,8% of all of the participants who chose to agree. Net, about 83,3% of students prefer to choose to agree with statement number 6, it indicates that the students are complicated to comprehend the specific information from the passage. Lastly, the students encounter the struggle to identify the tone, purpose, or course in the passage intended to 72,2% of students recognized the answer strongly agree. Furthermore, there are three most constraints faced by the non-English student to answer reading comprehension questions on TOEFL.

As stated by Nuttal, he recognized five types of the difficulties found by the students; feel struggling in reading comprehension; determining the idea, locating reference, understanding vocabulary, making an inference, and determining the detailed information [15]. Based on the data above, the non-English students got difficulty in understanding the passage because of lack of vocabulary as stated;

"I found it difficult when the theme of passage opposite with my background education because there are many vocabularies that I did not know" (Respondent 17)

By the same token, vocabulary is one of the foremost components which judged as the reason why the students hard to understand the passage. The inability to identify some

unfamiliar words in the text at high density can become an obstacle in the TOEFL [27]. Likewise, the students have no ability to search for specific information in the passage.

"In general, I frequently face or find a difficult thing like the passage of reading comprehension that has hard content to be understood. Sometimes, I cannot understand a passage that contains specific information that I ever heard before and contains the difficult words". (Respondent 3).

This result is in line with the study by Antoni who has investigated that the learners commonly gain any obstacles in taking the information because they cannot reach the ideas stated in the passage [28]. The problems may occur for any factors; lack of vocabulary and could not manage the time. Similarly, Oktarina revealed four difficulties oftentimes confronted by the learners; the matter of main idea, detailed information, unmentioned statement, and limited vocabulary [3]. Lastly, this difficult item that claims as one of the most problems chosen by the respondents is the struggle to recognizing the tone, purpose, or course in the passage.

"I think the difficult thing it is about referred to "object and back on paragraph". (Respondent 1)

"Closest meaning on the passage for me is kind of hard (unpredictable) question if I personally have lack of vocabs". (Respondent 6)

In the same way, it is also clarified by Sunayana and Shadi that some of the students are complicated to manage their reading speed ability in which they still hard to read properly, then it brings up the obstacle to determining the topic of the passage [29]. Therefore, those are the most difficulties that come up with the non-English students answering the reading comprehension TOEFL test.

4.2 The students' strategies

The following table shows the strategies applied by the non-English students in answering reading comprehension ITP TOEFL test which gathered from the online questionnaire.

Table 3. The strategies encountered by students.

No	Statements	Never	Sometimes	Often	Always
1	I observe any keywords to find main idea	-	33,3%	27,8%	38,9%
2	I can skim to define the main idea	-	44,4%	38,9%	16,7%
3	Keep focus on the purpose of what I search of when reading the passage	-	16,7%	55,6%	27,8%
4	I link my knowledge with the text when I read it	5,6%	33,3%	50%	11,1%
5	I use prediction skill when I read the passage	5,6%	44,4%	22,2%	27,8%
6	Implementing skimming method	5,6%	27,8%	44,4%	22,2%
7	Guessing a meaning through activating my background knowledge	5,6%	38,9%	44,4%	11,1%
8	I make a literal translation	-	55,6%	27,8%	16,7%
9	I read the passage in detail	5,6%	33,3%	33,3%	27,8%
10	I pay attention of the clue when I do not understand the text	5,6%	11,1%	50%	33,3%
11	I just keep focus to read even I found many unfamiliar words	-	38,9%	50%	11,1%
12	I repeatedly read the text if I could not	-	16,7%	55,6%	27,8%

comprehend it.

Table 3 indicates the strategies applied by the students dealing with the questions of the reading section in the TOEFL test. There are eight strategies mostly encountered by the students. Firstly, statement number 3 shows 55,6% of 18 students implemented this strategy in answering the question. Then, about half of the participants often used their background knowledge when reading a passage. Regarding to the number 6, about 44,4% of students apply the strategy of still focus on the foremost information through skimming. It also appears in the next statement with a similar percentage of the previous statement in which the students guess the meaning by linking their prior knowledge with what they read. Next, 9 of 18 students utilized to recognize any clues in the passage to find the meaning of the unfamiliar words. To know them, the students often utilized the guessing from the suffixes and prefixed words, and linguistic knowledge. It is proved by the 50% of the participants in statements number 11. Lastly, about 55,6% of the total participants take the number 12 as the strategies in answering reading TOEFL in which they are still focus on read the text even they face many unfamiliar words, and repeat to read the passage to increase their understanding.

When the students revealed any constraints to comprehend the passage, it is appropriate to investigate some strategies they applied to accomplish those struggles.

"I have to scanning the main idea of the topic". (Respondent 1).

"Trying to understand the passage by understanding the passage contextually". (Respondent 14).

"Sometimes, I don't read the whole paragraph. I only read where the keyword is, and focusing on it". (Respondent 16).

"I try to guess the meaning even that is not easy". (Respondent 17).

Lestari and Syaifullah also found in their study regarding the strategy frequently applied by non-English students [30]. Firstly, predicting strategy. This strategy helped the informant to make connections between his prior knowledge and the passage. By ensuring that he had sufficient background knowledge before beginning to read the text, it could also help him successfully making predictions about the text. Skimming was used by the participants to the process of understanding the passage to get an overall impression of the content. Meanwhile, scanning is a reading strategy used when they want to find specific information quickly. Lastly, re-reading. In this case, the students reread the text slowly and paid attention to the words and meaning more carefully.

Similarly, the rest of the strategies usually applied by the non-English students in this study are; guessing based on their background understanding, re-read the text even found any unaccustomed words, and using the clues.

"When I face a difficult passage in reading comprehension, I usually try to read it repeatedly till I can get the man topic of the passage. In addition, when I get a hard word to be translated, I usually read the previous sentence for understanding difficult word or sentence". (Respondent 4)

According to Samad et al., he also found the strategies applied by the students facing reading comprehension TOEFL test, namely; skimming the passage, focus to keep in mind a purpose and still concentrate on the passage, guessing the meaning, translating the passage, understanding the question first, and read through even the passage is really hard to understand [20]. As agreed by Antoni, he stated that the students generally implemented any ways on answering the questions, then they would be passed the test well [28].

5 Conclusion

This study explored how non-English students deal with the constraints faced in reading comprehension tests, and investigated any strategies to resolve those struggles. Therefore, most of the adversities found based on the data collected are difficult to understand the passage because of the lack of vocabulary, complicated to comprehend the specific information from the passage, and the struggle to identify the tone, purpose, and course. Consequently, the strategies mostly implemented by them to solve those difficulties are; keep in mind of a purpose and concentrate of what they propose, use the prior knowledge, focus on what they read, use background knowledge when reading the passage, focus on the foremost element by skimming method, guessing the meaning, using context clues, and guessing.

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Exploring Teacher Assessment Literacy in EFL Classroom

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Abstract. In the learning process, teachers are expected to overcome the various challenges and expectations that arise in conducting classroom assessment. Therefore, teachers should have assessment literacy skills in order to be able to carry out assessment practices according to the test standardized used in the education system. However, sometimes pre-service teachers do not have a good preparation in conducting classroom assessment therefore the mistakes often arise. Thus, this study aimed to explored teachers' understanding of assessment literacy and the extent of teachers' understanding of assessment literacy. The sample of the study was 6 pre-service EFL teachers who taught English in public schools and private schools in Raha and Kendari City, Southeast Sulawesi. This study used descriptive analysis to recognize pre-service EFL teachers' understanding of assessment literacy. The findings showed that pre-service teachers had a good understanding of assessment literacy but it was still in the medium level category. Thus, pre-service teachers should carry out self-development in classroom assessment practices in order to conduct the appropriate assessment instruction in the teaching-learning process.

Keywords: Assessment literacy, Teacher assessment literacy, Teacher assessment literacy in EFL classroom.

1 Introduction

In the learning process, assessing student performance is one of the important teachers' tasks in the classroom. Generally, assessment has used as an important factor in determining student success in the learning process [1]. It is to show the differences of students' abilities in learning process. In addition, it is as guidance in determining the students' rank depend on students' achievement level. It is in line with the statement that assessing student performance in learning is an essential part of teaching. The good students' assessment reflects the successful of teaching practices [2]. However, to carry out a good assessment the teacher should have good knowledge and skills regarding assessment therefore, teachers can accomplish proper assessment instructions. In addition, using appropriate technique and practice in assessment can improve the teachers' ability in designing proper assessment instructions. Then, it can rise students' motivation in learning because the assessment instructions reflect the learning material have learned previously therefore it can increase the students' achievement level in the classroom from time to time [3]. Hence, it is very important for teachers to master assessment literacy skills then teachers can accomplish classroom assessment practices during the learning process or conduct the assessment at the end of the learning process conferring students' level.

Assessment literacy refers to the teachers' ability to plan, manage and implement assessment results accurately and efficiently [4]. It shows that teacher should consider the whole

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aspects in classroom assessment then teachers can be literate in conducting classroom assessment. The assessment literacy skill is very important for teachers to develop in teaching practices. By having assessment literacy skills, teachers can apply appropriate instruction in exploring the level of students' ability during the learning process. In addition, teachers can continue to improve and develop instructions that applied in classroom assessment. It shows that assessment literacy refers to teachers' ability to understand, analyze and apply information about students' performance in order to improve the instructions in classroom assessment [5]. If teachers have good assessment literacy skill, the more comfortable teaching-learning process will be created because the good teaching-learning environment cannot be created without appropriate assessment practices [6]. It based on the positive and negative wash-back effect of National examination at the end of learning process period where the teachers' role is crucial in the student success during the educational process [4]. It is because the students' achievement as the representation of successful teaching and learning process has completed. However, the pre-service teachers in carrying out classroom assessment are still not in accordance with the applicable test standardized in education system. It is because pre-service teachers do not have enough knowledge about classroom assessment therefore it affects the teachers' practices in carrying out classroom assessment. In addition, the teacher lacks expertise in constructing tests to carry out in the classroom because teachers do not use valid evaluation procedures [7]. Therefore, the pre-service teacher should be possessed the assessment literacy skill in order to conduct the appropriate instructions in classroom assessment.

Under these conditions, researcher found out about the teachers' understanding on assessment literacy therefore the researcher can realize the extent of pre-service teachers' understanding on assessment literacy skill and identify the teachers' level in assessment literacy.

2 Literature Review

2.1 Assessment Literacy

Assessment plays a crucial role in the teaching-learning process because through assessment teachers can realize the extent of the successful in teaching-learning process. It is in line with the statement from Fard and Tabatabaei stated that students' assessment is an important responsibility for teachers because it can help teachers to understand, analyze students and help students to get positive consequences in the teaching field [2]. Therefore, it can help teachers make the right decisions about students' grade, grouping, placement and instruction through various assessment methods. In addition, the assessment is conducted in order the teacher can evaluate the teaching-learning process. Thus, the assessment conducted should meet the assessment standards in education system then it has reliability and validity level in accordance with the conditions of the students in the classroom. To conduct good assessment, teachers should be equipped with competent knowledge in assessment. Consequently, assessment literacy is a complete skill that can support teachers in developing classroom assessment. The assessment literacy is the teachers' ability to apply classroom assessment appropriately and accurately. In addition, assessment literacy define as the acquisition of knowledge, skills and principles of test construction, interpretation and use of the tests, test evaluations, and class-based assessments in addition to developing a critical attitude about the function of valuation in the context of greater education [8]. The assessment literacy consists of three phases, namely: teachers' concept of assessment, teachers' knowledge and skill and teachers' classroom practice of assessment [9]. Teachers are mastering the assessment literacy skill if the teachers have prior

knowledge on assessment and conducting the assessment practices in appropriate ways. However, Taylor stated that there are eight dimensions included in language assessment literacy, namely: knowledge of theory, technical skills, principles and concepts, language pedagogy, sociocultural values, local practices, personal beliefs, score and decision-making [10]. It shows that teachers in conducting the assessment practices should consider some aspects in assessment. As a result, to master further about assessment literacy skill, teachers should know whole aspects in assessment then teachers could said that teachers have good assessment literacy skill. Generally, the assessment literacy has engaged all stakeholders in education system that more emphasize on knowledge, skills, principles related to assessment of language skill [11]. The term of assessment literacy should be possessed by teachers in this era as the implication of global view of language assessment proposed by Davies [12] which as the development of the trends in language assessment textbook. It shows that there is an innovation in knowledge and skill on knowledge-informed skill and the principles of informed skill. In addition, to conduct the assessment literacy successfully in the classroom teacher should consider the relationship of three dimensions in assessment literacy and the questions that should be answered [9]. Firstly, the practice refers to the teacher should do and the purpose of carrying out the assessment. Secondly, the concepts refer to the theory and standardized tests used by teachers. Thirdly, the context refers to the learners' understanding and orientation in assessment and the context for the practice of assessment in teaching. Therefore, in conducting assessment practices in the classroom, the teacher should consider the three dimensions of assessment literacy then teachers can carry out assessment practices appropriate with the students' needs and test takers' level.

Several studies have conducted in this field. The development approach in classroom assessment literacy should be improved [13]. Therefore, teachers need to develop language assessment literacy teachers can explore and evaluate their own prejudices, to understand the interpretive nature of the phenomenon of assessment and to become increasingly aware of their own dynamic knowledge framework, understanding, values, which form their conceptualizations, interpretations, assessments and decisions in the assessment and learning of their students' second language [14]. It is because some teachers suffer from the poor implementation of classroom assessment literacy even though the role of assessment is very important in the learning process. Then, the classroom assessment should be the main concern of all stakeholders in education to support the implementation of appropriate classroom assessment and in accordance with the students' conditions. It is because the good classroom assessment practices reflected the success of the applicable education system.

2.2 Teacher Assessment Literacy

In this era, the education system requires teachers to make various innovations in assessment instruction. Thereupon, the teacher should be able to design valid and reliable assessments that possible to be applied in learning in order to measure the successful of students' learning process and the effectiveness of the teaching [15]. In other words, teachers should have the ability to manage, understand and apply assessment results accurately and efficiently [16]-[18]. By having adequate knowledge, teachers can take a role in integrating assessment into teaching therefore can produce appropriate assessment techniques in teaching [1]. Then, the teachers who have been literate in assessment will set the classroom activities based on three major concepts, namely setting assessment goals based on students' interests, conducting assessment dynamically through class assignments and providing feedback [3]. Therefore, teachers who have mastered assessment literacy skill properly will consider the three assessment concepts therefore the teachers can carry out classroom assessment successfully.

Literacy assessment skills are very important to discuss in this era to overcome the practice of assessment conducted by teachers not in accordance with the assessment standards [19],[20]. Thus, it also has an impact on pre-service teachers who tend to use assessments that are not in accordance with the assessment standards because teachers assume that the assessment practices used for generations [21],[22]. Then, pre-service teachers should be equipped with sufficient ability regarding the implementation of the assessment in order to avoid assessment practices that are not in accordance with the assessment standards. In addition, a variety of current knowledge about assessment should continue to develop through self-development activities in order to fulfill students' critical thinking skills [23]. In mastering the assessment literacy skill, teacher should consider two important components in teaching practices, namely: the knowledge base refers to what teachers need to know) and the complex process of language teacher education refers to how they learn and develop it then teachers can know how to develop teachers' assessment literacy skill. It deals with two goals, namely: transforming teachers' assessment practices and understanding the phenomenon of assessment itself and the teachers as assessor for themselves [24]. The knowledge, skills, and abilities are the guidance for teachers in conducting the assessment. Therefore, the whole aspects in assessment are very important to know by teachers in education system [9].

A series of previous studies found that many teachers were not train in the implementation of classroom assessment so teachers lacked knowledge of assessment. In other hand, teachers who have assessment literacy skills will affect the teacher's reflective teaching practice where the higher the assessment literacy held by the teacher, the higher the reflective teaching [1]. In addition, there are many recommendations from previous research to improve assessment literacy skills that integrate knowledge, skills, and principles in procedural texts that seek to balance the need for class and normative assessment [9]. It shows that the assessment literacy develop every time in accordance with the current trends in education field therefore it could meet the students' needs in the learning process.

2.3 Teacher Assessment Literacy in EFL Classroom

In teaching-learning process, if the teachers want to take over all activities in the classroom as well as the assessment then the teachers should have assessment literacy skill [15]. In accordance with curriculum 2013, the practice of classroom assessment has undergone a change where the teachers observe student successful not only from the students' knowledge. However, the teacher should evaluate students' attitude, knowledge and skills. Therefore, teachers should conduct a comprehensive assessment in accordance with established national education standards. In addition, the number of English learning models and assessments where each skill in language learning has the different treatment then assessment methods used are also different. It requires teachers to continue develop their skills in designing and evaluating assessments that are appropriate to used [12]. However, the role of classroom assessment in EFL is very challenging for teachers [25],[26]. In addition, the classroom assessment can provide the controlling effect on teaching-learning process [27]. In the classroom, teachers can spend as much as 20 % or 30 % in assessment related activities [28]. It shows that teachers spend a lot of time to design and conduct the assessment activity in the classroom. It is because the successful of assessment in the classroom supported by good enough teachers' capability in conducting assessment. However, some aspects influence the quality classroom assessment. Firstly, the external test. Then, teachers' assessment literacy skill. Thirdly, the classroom realities [29],[30]. The external tests greatly affect the lesson plan, learning goals and performance assessment [29],[31]. The other challenges can influence the misconception of teachers, students, and education units about assessment are the inaccuracies of assessment given therefore it does not

match the learning process in certain level. Thus, it does not support students' motivation and learning enthusiasm [32]. Then, the lack of teachers' knowledge in quality assessment practices because teacher preparation courses and professional training do not prepare teachers well for classroom assessment [29],[33],[32],[30]. In addition, inappropriate behavior of students and heterogeneity of students' abilities also influence the implementation of assessment in the classroom [29]. In addition, crowded classroom and limited learning time in the classroom are mainly in public schools also influence the classroom assessment practices [34]. Moreover, to achieve an increase in student achievement, several programs that should take in order to promote the improvement of classroom assessment quality. Firstly, training programs for teachers should have more courses that are intensive on assessment literacy in order to prepare teachers well to face the challenges of classroom assessment. Secondly, the practice of classroom assessment should transform into an assessment for learning [29],[35]-[37]. In each level, the quality of learning assessment leads to greater student achievement [27]. Hence, to improve the quality of assessment, educational institutions should support teachers in developing their assessment skills by providing various training programs regarding assessment. It is because the previous research shows that the training in assessment literacy still include few program. The training held should prioritize pre-service teachers and in-service teachers in improving the development of assessment quality. Besides, an evaluation of the implications from training activities should be carry out therefore teachers could know the extent of their progress in classroom assessment. Consequently, the quality of classroom assessment always increases in every time.

Several previous studies have suggested that the understanding of pre-service teachers who have taken the assessment course is superior to in-service teachers in the assessment of attitudes, knowledge, and skills [38]. It shows that teachers who have participated in various teaching skills development will be superior in understanding classroom assessment. In other hand, even though the teachers have a positive attitude towards the implementation of assessment but the teachers still have low literacy assessment skill [39]. In addition, in increasing teacher assessment literacy, cooperative learning approaches and teamwork can carry out in which people who have sufficient knowledge in assessment act as mentors. It shows that cooperative learning and teamwork can be an alternative to increase teachers' assessment literacy skills in order to conduct the appropriate assessment practices in the classroom [13]. It is supported by Scarino [14] emphasized that it is important to increase assessment literacy in a way that can help teachers explore more about the phenomena in assessment therefore teachers can form values that can be used as a guidance for teachers in carrying out classroom assessments during undergoing their teaching careers. Therefore, assessment literacy skill is very important for pre-service teachers and inservice teachers in order to conduct the appropriate assessment instruction in the classroom.

3 Methodology

3.1 Research Design

The research design of the study was using descriptive analysis. This study were designed to identify teachers' understanding on assessment literacy and the extent of teachers' understanding on assessment literacy in EFL classroom by using Classroom Assessment Literacy Inventory Questionnaire adapted from Mertler [40]. By answering the question items from the questionnaire, researcher could know the teacher assessment literacy in EFL

classroom. Thus, researcher could draw conclusions to what extent the teachers' understanding on assessment literacy and the teachers' level in knowing assessment literacy.

3.2 Participants

The participants of the study were 6 pre-service teachers whose ages range 23-25 years old and who have taught English for approximately 4 months-2 years in various levels of education. Participants in this study focus on pre-service teachers who undertake teaching activities in public schools or private schools in two different cities, namely Raha and Kendari. These two cities were located in Southeast Sulawesi that was one of the provinces in Indonesia in the Southeast part of Sulawesi Island with the capital city Kendari. Teachers who participated in this study were fresh graduated about one or two years ago completing their bachelor degree in English education major. In addition, one of the teachers started teaching activities in one of private school located in Kendari, Southeast Sulawesi while studying. Meanwhile, some teachers started teaching activities in public schools or private schools when the teachers have completed their bachelor degree in English education major. As a result, teachers' experience in starting teaching career was still very beginning and fresh then it was necessary to explore further the teachers' knowledge and skills about classroom assessment. Then, the pre-service teachers have mature readiness in starting teaching activities even though the teachers had occupied language-testing course during their studies. However, it did not yet reflect that the teachers had a well-prepared readiness in terms of both knowledge and skills in conducting classroom assessment. As a result, it is important to identify the teachers' background knowledge and skills in classroom assessment in order to prepare the pre-service teachers to be professional in conducting classroom assessment practices.

3.3 Instrument

The instrument of the study was using Classroom Assessment Literacy Inventory questionnaire proposed by Mertler [40]. The questionnaire were divided into two parts which part I consisted of items related to teachers' background and part II consisted of 14 multiple choice items with four options related to knowledge of standardized testing and the remaining items were related to classroom assessment. One option can be the correct answer and it was alligned with "Standards for Teacher Competence in Educational Assessment of Students", namely choosing assessment methods, administering assigning and interpreting learning outcomes, using assessment outcomes in decision making, using assessment to determine levels of learning outcomes, communicating assessment outcomes, and knowing unethical practices.

The questionnaire used to recognize teacher knowledge, basic elements and principles in educational assessment. Accordingly, researcher could identify the teachers' knowledge and skills in classroom assessment practices related with the test standardized in education system.

3.4 Procedure

In collecting data, researcher distributed the questionnaire to 10 pre-service teachers who completed their studies about one or two years ago and the teachers are currently undergoing teaching activities in formal and semi-formal school institutions at this time. However, only six teachers respond the questionnaire. In addition, the questionnaire designed in a Google form then shared via WhatsApp account of pre-service teachers. The teachers accessed the link and filled in the personal information related to the teachers' personal background. Then, the teachers answered the questions related to the teachers' knowledge in conducting an appropriate

assessment with the standardized test in education system directly by selecting one of the correct answers to the questions asked. In this case, the teachers answer the questions according to their experiences in conducting classroom assessment. For that reason, every teacher has different answer in responding each question.

3.5 Data Analysis

In this study, the data analysis was used the percentage of each questionnaire to know the teachers' understanding of assessment literacy. Through percentage of the questionnaire researcher could analyze the extent of knowledge and skills possessed by the teachers in carrying out classroom assessment. Then, the researcher calculated the mean score of each item based on the standard used in assessment literacy therefore the researcher could know the level of teachers' assessment literacy. Hence, the researcher could know the assessment literacy skill possessed by pre-service teachers who have teaching experience around 4 months 2 years which category belongs.

4 Findings and Discussions

4.1 Findings

Teachers' Understanding on Assessment Literacy in EFL Classroom. In accordance with the questionnaire used by researcher in collecting data divided into two parts, namely: pre-service teachers' personal background and teacher knowledge about aspects of classroom assessment in line with the assessment standards used. The researcher finds out several things as follows:

Table 1. Pre-service Teachers' Background

Respondent	Gender	Age	Teaching Experience	Level of Teaching
Respondent 1	Female	24	2 years	Private School
Respondent 2	Female	23	2 years	Private School
Respondent 3	Male	23	More than 1 year	Junior High School
Respondent 4	Female	24	1 year	Elementary School
Respondent 5	Female	24	4 months	Junior High School
Respondent 6	Female	23	1 year	Junior High School

Based on the table, it shows that the respondents in this study consist of 5 female teachers and one male teacher. The age range of the teachers is around 23-24 years old and they have teaching experience around 4 months to 2 years. As pre-service teachers, of course the teaching experience in this period has carved a lot of stories and experiences in teaching. From this table, it shows that four teachers teach in public schools (elementary schools and junior high schools) and two others teach in private schools. In addition, English teachers in private schools teach in various students' level, namely: elementary school, junior high school, senior high school and university. Therefore, it shows that at least teachers have a long enough experience that can support the development of teaching skills in various aspects of teaching. However, sometimes the span of teaching experience does not always support the teacher in mastering effective teaching skills.

Table 2. Teachers' Score of Classroom Assessment Literacy

Standard	Items	Score			
		1	2	3	4
Choosing assessment methods	Q1	33.3 %	-	66.3 %	-
	Q2	16.7 %	16.7 %	-	66.7 %
Developing assessment methods	Q3	66.7 %	33.3 %	-	-
	Q4	16.7 %	16.7 %	16.7 %	50 %
Administering assigning and interpreting learning outcomes	Q5	50 %	16.7 %	16.7 %	16.7 %
	Q6	33.3 %	33.3 %	-	33.3 %
Using assessment outcomes in decision making	Q7	16.7 %	-	50 %	33.3 %
	Q8	33.3 %	16.7 %	-	50 %
Using assessment to determine levels of learning outcomes	Q9	16.7 %	16.7 %	33.3 %	33.3 %
	Q10	16.7 %	66.7 %	-	16.7 %
Communicating assessment outcomes	Q11	33.3 %	16.7 %	50 %	-
	Q12	-	33.3 %	16.7 %	50 %
Knowing unethical practices	Q13	50 %	-	33.3 %	16.7 %
	Q14	-	33.3 %	50 %	16.7 %

Based on the table shows that the ability of teachers in choosing assessment methods is very good where the teacher can choose the method in accordance with the objectives from the implementation of assessment in order to achieve the learning objectives. In choosing this assessment method, the teacher should really consider that the instruments used are in accordance with the purpose of the assessment. In other side, teachers still have not shown a good response in developing assessment methods that suitable with the appropriate instruments. It is because teachers do not have sufficient experience regarding the development of assessment methods.

Furthermore, in administering assigning and interpreting learning outcomes, some teachers still do not have sufficient abilities because teachers still seem confused in interpreting learning outcomes based on the tests given. In other hands, in determining decisions based on the results of classroom assessments already have adequate abilities where the teacher can determine the best decision based on the problems given related to assessment in the classroom. In determining the level of student learning outcomes based on assessments given, the teacher can interpret well according to student scores. In this case, the teacher should really interpret student-learning outcomes based on the results of the assessment in order to be able to evaluate the learning process that has done. Therefore, teachers can find out whether the learning process has been successful or not.

To find out whether the assessment has met the assessment objectives that have designed, the teacher expected to be able to communicate the results of the assessment by interpreting student scores in accordance with the assessment standards used. Of course, in conducting the assessment should meet the code of ethics in carrying out assessments in the classroom, the teacher should have knowledge of ethical and unethical practices carried out in classroom assessment. Based on the result, researcher find that the teachers have not been able to determine the actions that should be done and do not in carrying out the assessment in the classroom. It is because the teacher still does not have background knowledge regarding appropriate actions in carrying out classroom assessments.

In brief, the classroom assessment literacy of pre-service teacher in the classroom shows the good responses. However, it is important to develop the knowledge about carrying out the classroom assessment in order to conduct the appropriate assessment based on the standard from educational system. It is because there are some parts of the standard assessment that have not achieved by teachers and show that they already have good assessment literacy.

The Extent of Teachers' Understanding on Assessment Literacy in EFL Classroom.

Table 3. Levels of Classroom Assessment Literacy

Standard	Classroom Assessment Literacy		
	Low	Medium	High
Choosing assessment methods	-	66.7 %	-
Developing assessment methods	-	58.5 %	-
Administering assigning and interpreting learning outcomes	-	41.65 %	-
Using assessment outcomes in decision making	-	50 %	-
Using assessment to determine levels of learning outcomes	-	41.7 %	-
Communicating assessment outcomes	-	50 %	-
Knowing unethical practices	33.35 %	-	-

The table shows that the assessment literacy skills possessed by pre-service teachers in EFL classroom are still in medium level. It means that teachers should continue to develop their assessment literacy skills by attending various training programs that can support self-development. In addition, there are still low levels of assessment practices conducted by teachers in the classroom. It caused by various factors, namely: teaching experience, teacher preparation in teaching, and lack of self-evaluation at the end of the learning process therefore inaccuracies in carrying out assessments still occur in teaching practices.

Overall, pre-service teachers with teaching experience within 4 months-2 years have shown a good response. However, the attitude in improving assessment literacy skills should continue especially for pre-service teachers who have just entered the world of teaching in the classroom.

4.2 Discussion

Based on the results of the study, teacher assessment literacy should possessed by both pre-service teachers and in-service teachers. In 21st century, assessment literacy skills should increase to encounter the students' needs in the classroom. In this case, the teacher should carry out various innovations in classroom assessment in order to achieve the desired learning goals. It is in line with what Fard and Tabatabaei found in their study which teachers do not yet have adequate assessment literacy skills due to lack of teacher preparation when teaching in the classroom [2]. It is in line what Muhammad et al. said that teachers are not prepared well to assess students' performance appropriately and determine the right level of assessment [34]. In addition, various conspiracies that have carried out in the previous learning process are still a habit that is used by pre-service teachers and in-service teachers. In fact, pre-service teachers as new graduates of education should bring new changes in the classroom in accordance with the current education system. In other hand, Mellati and Khademi found that teacher assessment

literacy affects student-learning achievement in writing skill [3]. In addition, it can influence teachers' awareness in preparing the teaching environment into an effective and efficient assessment in accordance with the language skills have taught. Therefore, it is very important for teachers to raise their readiness in carrying out effective assessment in accordance with the language skills have taught.

Then, teachers should possess the assessment literacy skill because it is a way to promote the effective teaching-learning process in accordance with the education standards. Most of teachers conduct the appropriate instruction in assessment automatically will increase the teaching practices in the classroom. The appropriate assessments' instruction will lead students to know their progress in learning how extent they have engaged in learning process. Therefore, mastering assessment literacy skill will help students in acquiring the learning objectives.

5 Conclusion

The conclusion of the study shows that teachers have good responses on assessment literacy. However, the assessment literacy skills still categorized in medium level. It shows that pre-service teachers do not have well enough yet classroom assessment practices even the teachers are new graduate. It is because the teachers do not have good preparation in teaching especially in organizing the assessment. In addition, the teaching experience also influenced the teachers' skill in conducting the appropriate assessment. Therefore, pre-service teachers should have a high desire to improve assessment literacy skills by participating in several activities that can support the development of their knowledge and skills in assessment.

In this study, researcher strongly recommends pre-service teachers in 21st century to develop themselves in teaching practices, especially assessment literacy skills by joining some training in language assessment. It is because language assessment training is not only to foster assessment literacy skills but also to equip pre-service teachers with the ability of basic knowledge, skills, and principles in handling large-scale assessments and efficient classroom-based assessment. In addition, mastering assessment literacy can help teachers to utilize assessment results in order to promote student successful in learning process (Lam, 2015).

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HOTS Implementation in French Learning Assessment in High Schools

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Abstract. The 2013 curriculum aims to create generation that has 21st century skills: creative, critical thinking, communicative and collaborative (4C). To achieve this goal, it is necessary to integrate higher thinking skills (HOTS) in learning. This study aims to identify the implementation of HOTS in learning assessement of French in high school and to describe the understanding level of French teachers about HOTS and its implementation. It is a qualitative descriptive analytic study with documentation and in-depth interviews for data collection. In this research, 8 packages of grade 10 final tests from five schools in Lampung, totaling 348 questions and interviews are used as sources of data. The results of the analysis show that the composition of the questions on the exam already contains questions with HOTS characteristics consecutively as follows : remembering/C1 (36.78%), understanding/C2 (53.16%), applying/C3 (7.47%), analyzing/C4 (2.58%). Evaluation is an important aspect but cannot be separated from the objectives and the learning process. Referring to the interview with five French teachers, the low percentage of HOTS questions is due to the lack of their knowledge in designing HOTS questions and implementing HOTS-based learning process. On the other hand, the description of basic competencies in French syllabus that they use as reference in determining objectifs and learning process does not relfect the higher thinking order.

Keywords: Higher Order Thinking Skill (HOTS), assessment, French syllabus.

1 Introduction

The rapid development of science and technology, especially in the field of communication, brings not only changes but also new demands. The complex life problems force humans to adapt quickly in order to survive in this increasingly competitive life. The ability of literacy, critical and creative thinking is predicted to be the skills needed to face life's problems in this century.

The government is well aware of this situation. As an effort to prepare the generation with these abilities, the 2013 curriculum was then implemented as a complement to the previous curriculum. The curriculum, which emphasizes in strengthening character education and scientific approaches, aims to build the character of students and equip the golden generation of Indonesia with 21st century skills, including critical thinking and problem solving skills.

High-order thinking skills and problem solving commonly called HOTS has become educational goals not only in Indonesia. The Education system worldwide has also developed framework on increasing emphasis on thinking skills as one of the skills of the 21st century [1]. In fact, over the decades, the aim of developing and enhancing students' higher order thinking (HOT) has been a major educational goal [2].

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It was originally a concept about the categorization of educational goals introduced by Benjamin S. Bloom. Initially, there were only two domains in this taxonomy, namely the cognitive domain and the affective domain. Finally, his colleague Simpson added one domain to complete, namely the psychomotor domain [3].

Bloom's Taxonomy of thinking level is widely used. This taxonomy was later revised by Anderson & Krathwohl . For the cognitive domain, Bloom classified thinking skills into six levels, namely 1) remembering, 2) understanding, 3) applying, 4) analyzing, 5) evaluating and 6) creating (creating). The six levels are then divided into two groups, namely Lower Order Thinking Skill (LOTS) and Higher Order Thinking Skill (HOTS).

The main purpose of high order thinking skills is related to the ability to think critically in receiving various information, think creatively to solve problems using the knowledge they have. According to Krulik and Rudnick, problem solving is a process. The pattern of problem solving is explained into steps that can be addressed to students, namely 1) reading a problem, 2) developing information, 3) choosing a strategy, 4) solving the problem, and 5) checking and expanding.

The concept of high order thinking skills is based on several opinions as in the following table:

Table 1. Basic concepts of HOTS

Problem solving Krulik & Rudnick (1998)	**Cognitive Level of Bloom Taxonomy (1959)**	**Revised Bloom Taxonomy (Anderson and Krathwohl, 2001)**
Recall	Knowledge	Remember
Basic	Comprehension	Understand
	Application	Apply
Critical	Analysis	Analyze
Creative	Synthesis	Evaluate
	Evaluation	Create

Source: Dinni [4]

Assesment is an important stage that needs to be carried out in every process/effort and is used as a tool to determine if the objectives are already achieved or not. On the other hand, learning is a series of processes that are gradually and systematically arranged by educators who use it to interact with students so as to make changes to their students both in terms of knowledge, abilities and skills. So to find out if the learning objectives have been achieved or not, it is necessary to carry out an evaluation.

Assesment in education practices cannot be seen from just one aspect, for example the final exam or national exam alone. Many things are involved in it. It is a a triangulation - or a close relationship between three components - namely between a) learning objectives, b) learning activities or teaching and learning activities, and evaluation.

According to preliminary study and observation, it is found that many items in French examination have not explored higher thinking skills of student in one or another by concentrating only certain language component. Moreover, assessment/evaluation can not be separated from other learning activities. Therefore, this study aims to explore deeper the HOTS implementation in educational practices which involves learning process and assesment in French classrooms.

2 Method

This research adopts descriptive qualitative analytical method because it aims to identify the HOTS implementation in French learning process and evaluation in high schools and also to describe the understanding level of teachers toward HOTS and its application in the classroom. The data were collected by documentation, analysis and in-depth interviews.

French is a foreign language other than English that is taught at the high school in Indonesia. In Province of Lampung, there are only 7 schools that gives French as specialization subject. According to the policy of some schools, it is not offered at all levels. This subject is generally given in class X or first level of high school.

HOTS learning does not require students with certain abilities or level, but can be applied at all levels of education. Beside that, the availability of sufficient data sources and the willingness of the teacher to provide the documents of the final exam questions already tested became the main reasons why the researchers used the final exam documents for odd and even semester of class X from five schools as primary data source.

This data source consists of 8 packages of final exams (odd and even semesters) containing a total of 348 items in which there are quantitative data consisting of HOTS components. The questions that have been collected are then analyzed based on the level of critical thinking according to the description of the revised version of Bloom's taxonomy.

To find out the implementation of HOTS in French learning related to the objectives, indicators, steps of HOTS implementation in learning process and evaluation, the researchers used teachers' lesson plans as secondary data. To get deeper and broader information, the researchers also conducted in-depth interviews with French teachers with question guidelines concerning the item writing for final exam, teacher mastery/knowledge of characteristics of HOTS items and also critical-based learning.

Data analysis in qualitative research is carried out during data collection and after completing data collection within a certain period. The method of data analysis in this study uses data reduction, data display and drawing conclusion/verification.

3 Results and Discussion

3.1 Results

In this study, 8 assesment documents consisting of 4 final exams packages (odd semester) and also 4 packages of even semester were used. They were taken from 5 high schools or vocational high school in Lampung. The total number of items in the 8 question packages is 348 consisting of 173 items for odd semester and 175 questions for even semester. The majority of items are in the form of multiple choice objective tests with 5 answer choices. There are only 15 questions in the form of a limited form of essay test.

In accordance with the selected grade level, the subject of the questions tested refers to the syllabus of French language and literature subjects for class X which discusses greeting, saying goodbye and thanking *(saluer, prendre congé et remercier)*, introducing oneself *(se présenter)* , talking about identity *(donner l'identité)*, stating hour, day, date, month, year *(situer dans le temps)*, objects and public buildings *(les endroits publics)*, describing things or peoples *(décrire une personne ou une chose),* giving instructions *(instructions, panneaux)*, and exemplifying song lyrics *(parole d'une chanson)*. The questions are then analyzed based on the criteria contained in the thinking process stage of the revised Bloom's taxonomy.

Taxonomy means the classification or grouping of objects according to certain characteristics. In the field of education, the taxonomy aimed at classifying learning objectives is classified into three domains, namely 1) cognitive domain, relating to learning goals that emphasize thinking skills, 2) affective domains to feelings, emotions, value systems, and heart attitudes. , and 3) psychomotor domain which relates to motor skills. Taxonomy for these instructional purposes is numerous, generally using the name of the creator.

The cognitive domain is one of the aspects that is the target of learning and gets more attention than the other two domains. The cognitive domain is a domain that includes mental (brain) activities. Sudjana states that the cognitive domain is the target of learning outcomes related to memory about knowledge, skills, and intellectual abilities [5]. Bloom's taxonomy in the cognitive domain is the most recognized basic framework for categorizing educational, test and curriculum objectives in the world [6].

The thinking framework in Bloom's taxonomy is divided into 6 levels arranged from the simplest to the most complex, namely knowledge, comprehension, application, analysis, synthesis and evaluation. This taxonomy was then revised by Anderson and Krathwol by changing the categories in Bloom's taxonomy which initially used nouns to verbes so that this cognitive domain was more lively and applicable for educators and learning practices so that it was hoped that it could help educators in processing and formulating learning objectives and assessment strategies. Bloom's Taxonomy has been perfected to remember (C1), understand (C2), apply (C3), analyze (C4), evaluate (C5) and create (C6) [5],[4],[7],[8].

Broadly speaking, remembering (C1) means remembering or recalling information that has been learned (in memory), understanding (C2) means using memory to describe, explain, or give examples related to something and applying (C3) is using knowledge, rules, principles and things that have been understood to apply to different situations that have never been experienced before. Furthermore, analyzing (C4) means identifying and understanding parts of the material or the whole material, evaluating (C5), namely connecting elements to form a new whole, and creating (C6) means developing new problem solving strategies. After analyzing the 348 questions with reference to the description for each level in Bloom's taxonomy which has been perfected, the results are as shown in the following table:

Table 2. Item Analysis Based on Revised Bloom Taxonomy

Thinking Process Level (Revised Bloom Taxonomy)	School					Number of question
	I	II	III	IV	V	
Remembering	21	14	72	7	14	128
Understanding	65	57	14	23	26	185
Applying	12	4	4	6	0	26
Analyzing	2	3	0	4	0	9
Evaluating	0	0	0	0	0	0
Creating	0	0	0	0	0	0
Total	**100**	**78**	**80**	**40**	**40**	**348**

The data in the table shows that the level of thinking that is demanded on the exam items is mostly at the understanding level (C2). No test items is in level of evaluating (C5) and creating (C6). The highest percentage of cognitive level is: remembering (36.78%), understanding (53.16%), applying (7.47%), analyzing (2.58%), and evaluating and creating respectively 0 %. The total results for each cognitive level from the French learning outcome test questions for the five schools are presented as follows:

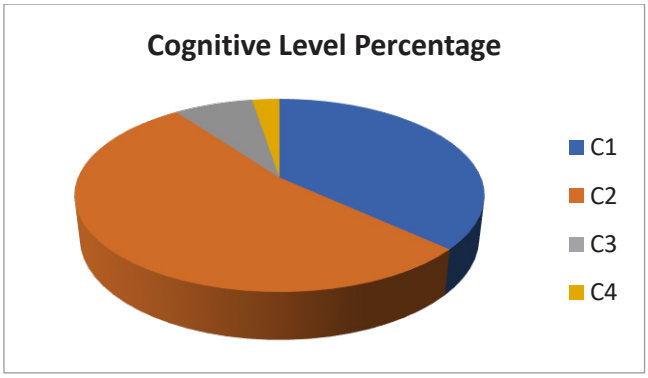


Fig. 1. Cognitive Level Percentage of French Items

The HOTS questions are not synonymous with difficult questions. The difficulty level of the questions is different from the higher order thinking skills. The HOTS problem emphasizes the thinking skills of students who are needed to find the correct answer to the question which is not only remembering, understanding and applying a concept but also being able to connect and compare existing elements /facts so as to be able to create new ideas.

They have several characteristics, namely 1) measuring higher-order thinking skills, 2) divergent, 3) using multiple representation, 4) based on contextual problems and 5) using various types of questions [9].

The results of HOTS characteristics analyses are as follows :

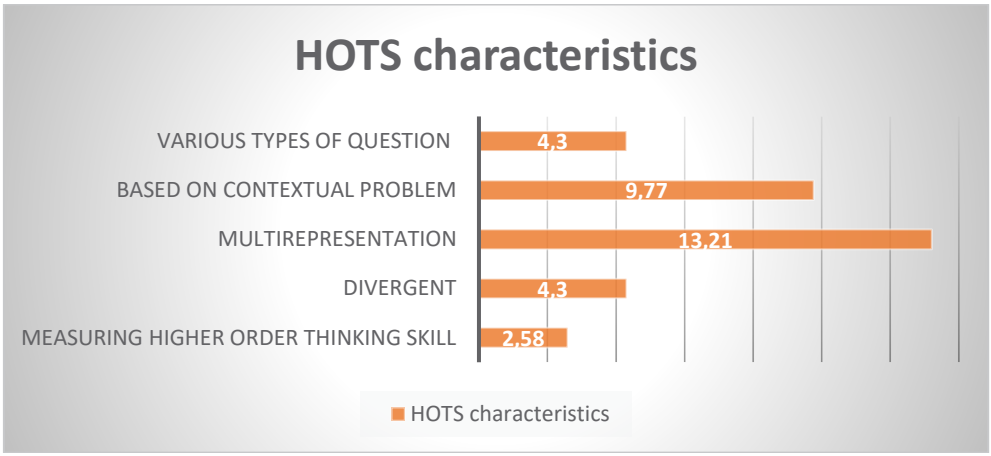


Fig. 2. HOTS characteristics on each item

The chart indicates that the percentage of French language exam questions having HOTS characteristics is still in very small quantity. The largest percentage is dominated by the form of multi-representation questions.

Apparently, the teachers misunderstood the notion of multi-representation. The existence of pictures, numbers, icons does not guarantee that the question is considered as HOTS. Problems with multiple representations is HOTS if to solve the problem, students must refer to pictures, graphs to get the information implied in them, not expressly through the visual or mathematical form in it.

3.2 Discussion

HOTS Implementation in French Evaluation.

Composition of Cognitive Levels on Class X French Final Exam. This section will discuss one by one the cognitive levels contained in items.

1. Remembering (C1)

   Remembering is the lowest cognitive process based on Bloom's revised taxonomy. The meaning of remembering in this case is recalling cognition/ knowledge that is already in memory or recalling facts, concepts and procedures. Although they cannot be used as the main standard, some Operational Verbs (KKO) can be used as references to find out what cognitive processes are involved at this level. These verbs include remembering, registering, repeating and imitating. The percentage of 36.78% puts this level of thinking in the second most of the total number of questions. The following is example of item that use the ability to remember (C1):

   (1) Data No: I/A/1

   Comment ..... - vous?

   a. vais *d. allons*

   b. vase *e. allez*

   c. va

   Answer key: e

   Explanation:

   To answer the questions above, students must remember the conjugation of the verb aller for the subject 'vous'. It is an irregular verb so remembering is a thought process that is needed in this case.

2. Understanding (C2)

   Understanding is the ability to make descriptions, explain ideas/concepts, or provide examples of something. The operational verbs are commonly used include explaining, receiving, reporting, differentiating etc. The items that demand the ability to think at the level of understanding are the types of questions that are mostly found in data sources, amounting to more than half of the total (53.16%) as shown in the following examples:

   (2) Data No .: II/E/5

   Qu'est-ce que c'est?

   a. Continuer tout droit *d. Le rond-point*

   b. Tourner à gauche *e. Arrêter*

   c. Tourner à droit

   Answer key: a

   Explanation:

   To answer this question, students must recall general knowledge, namely the meaning of the traffic sign, then connect it with the correct answer choice by understanding the meaning of the word/phrase in the answer choice.

3. Applying (C3)

Applying means returning what is understood in a different situation or using information on a different domain. Applying is not necessarily able to solve the problem (problem solving) because it still tends to repeat processes that have been done (routinely). Applying can also mean using certain factual, conceptual and procedural knowledge on other concepts in the same subject or other subjects. Operational verbs that are used include using, demonstrating, illustrating, operating, proving, implementing. The following are examples of items that belong to the C3 level thinking process:

(3) Data No. I/D/40

Uraikanlah dengan tepat konjugasi bentuk présent untuk kata kerja frapper pada setiap subjeknya (je, tu, il/elle, nous, vous, ils/elles)

Answer key : *je frappe, tu frappes, il/elle frappe, nous frapons, vous frappez, ils/elles frappent*

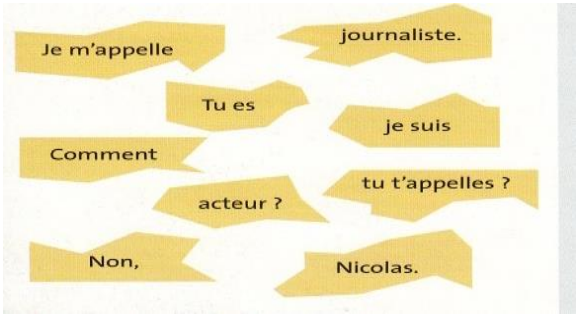
Explanation:

French verbs are classified into 3 major groups, namely verbs that end in *–er, –ir* and *–re*. Each group of verbs has a certain pattern of formation. Students must be able to apply the concept of regular *–er* verb conjugation by writing the conjugation of verb *frapper* for each subject pronoun in French.

4. Analyzing (C4)

Analyzing is the ability to decipher something into smaller parts so that a deeper meaning can be obtained. At this level, the ability to organize and connect between parts is needed so that a more comprehensive meaning is obtained or to evaluate it to find advantages or disadvantages so that new ideas are obtained.

(4) Data No. II/A/1



Quelle est la profession de Nicolas?

a. commédien
b. actrice
c. acteur
d. chanteur
e. Journaliste

Answer key : e

Explanation

To answer the above questions, first the students have to be able to understand the vocabulary contained in the sentence fragments then organize/structure the sentence pieces into complete sentences. After that students must be able to combine the sentences that have been formed so that they become acceptable conversations and after that, the answers to these questions will be obtained from the information obtained from the meaning of the dialogue.

HOTS Characteristics in Items.

Since the 2013 curriculum came into effect, it is highly recommended for teachers to integrate HOTS in the learning process and especially in the preparation of class assessment questions and school exams. HOTS application in learning in schools is very important in order to increase the level of students' thinking or cognitive abilities. HOTS trains students to have the ability to think critically, creatively, to argue, to make decisions and to solve problems. The habit of high-order thinking will form strong student competencies so that it is very useful for dealing with problems in real life in the increasingly complex future.

Higher order thinking skills include the ability to solve problems (problem solving), critical thinking skills, creative thinking, reasoning skills, and decision making skills. The creative and critical problem solving in HOTS consists of: a) the ability to solve unfamiliar problems, b) the ability to evaluate the strategies used to solve problems from different points of view, and c) find new solving models that are different from the previous way.

1. Measuring Higher Thinking Skill

   Analysis of the thinking skills required to work on each item has been carried out. The results of the analysis show that the percentage of questions that require a higher level of thinking is relatively low, namely only 2.58%. Apart from this, the characteristics of the HOTS assessment instrument can be seen from other aspects.

2. Divergent

   The HOTS assessment instrument must be divergent, meaning that it allows students to give different answers according to the thought process and point of view used. Divergent thinking is also called creative thinking. Creative thinking is thinking to provide various possible correct answers or ways to a problem based on the information provided with an emphasis on the variety of numbers and suitability. Guilford stated that there are five characteristics of creative thinking abilities, namely fluency, flexibility, originality, elaboration and redefinition.

   The form of questions from data sources totaling 348, 313 of the total are in the form of multiple choice. Multiple choice questions have many types. The types of multiple choice questions contained in the final tests are dominated by the multiple choice of completing with five choices. This type limits students to think divergent because they do not allow students to give different answers.

3. Using multiple representation

   HOTS assessment instruments generally do not present all information in an explicit manner, but force students to dig up implied information themselves. To foster students' critical thinking in selecting and sorting information, HOTS assessment instruments should use various representations including verbal (in the form of sentences), visual (images, charts, graphs, tables, including videos), symbolic (symbols, icons, initials, cues), and mathematical (numbers, formulas, equations). The results of the analysis of 348 items show that some of items present several pictures in the questions besides sentences such as the following example:

   (5) Data No : I/B/5

Selon cette image, quelles sont leur profession?

a. *Nous sommes journalistes*
b. *Elles sont journalistes*
c. *Elle est journaliste*
d. *Ils sont journalists*
e. *Il est journaliste*

To answer this question, students do not only read the sentence questions but must also look at the picture. Students must look at the picture and the written text to find out the subject pronouns for two people (male and female).

4. Based on Contextual Problems

The five characteristics of contextual assessment (REACT) are relating (related to real life experiences), experiencing (extracting, discovering and creating), applying (applying knowledge to solve real problems), communicating (communicating the conclusions of the model to the conclusion of the problem context), transferring (transforming the concept of knowledge in a new situation or context).

HOTS questions are an assessment based on real situations in everyday life, where students are expected to be able to apply learning concepts to solve problems. Contextual in the context of foreign language learning, including how students are able to overcome communication problems when faced with oral and written communication situations encountered in real life such as filling out biodata forms, asking questions about personal data when registering for courses, shopping (asking and bargaining prices), make appointments and so on. Some of the questions in the data source meet these criteria as in the following example:

(6) Data No. : II / B / 5

Akmal: C'est samedi. Tu es libre ce soir?
Haifa: Oui
Akmal: Je veux regarder le film. What is veux regarder also?
Haifa: C'est intéressant. On va aller ……. ensemble pour regarder le film.
a. au restaurant *d. au musée*
b. à la gare *e. à la boucherie*

c. au cinéma

There is a conversation between friends that discuss invitations to do activities to spend spare time. The context of this conversation is common in everyday life. To answer these questions, students must understand the overall content of the conversation so that they can determine the place in question. The number of questions that use contextual problems in the research data source is still very limited. There are still many questions that do not provide a stimulus or are not based on the context of communication in real life. These questions focus a lot on questions that measure the understanding of grammar usage and the meaning/ translation of the meaning of certain words or expressions.

5. Using various types of question

The various forms of questions in a test set need to be considered by the teacher so that the assessment carried out guarantees the principle of objectivity. Alternative question forms that can be used to write HOTS items include multiple choice and descriptions.

As mentioned above, the total number of items used as a data source is 348 (it should be 350 because two questions are repetitions). The composition of the types of questions consisted of 333 multiple choice objective tests with 5 answer choices, 5 questions in the form of a complementary test and 10 questions in the form of short descriptions. Based on interviews with French teachers, the use of tests which are almost entirely in the form of simple multiple choice is based on the reasons for the ease of correction and the limited time for the exam, namely 60 - 90 minutes for 40 - 50 questions per exam package.

The choice of question form depends on the objectives to be achieved from a lesson. Each form has advantages and disadvantages of each. Some of the characteristics of HOTS questions include being divergent, which means that it allows students to give different answers according to the thought process and point of view used. Thus the description questions are more appropriate to measure the higher thinking skills of students. In contrast to objective tests such as multiple choice, this type of question is more difficult to use to measure this ability. This is confirmed by Sudijono who says that objective tests are generally less able to measure or reveal high or deep thinking processes. This weakness is mainly due to the fact that in order to provide answers on objective tests, which are generally short answers, testees are not required to think deeply [10].

Another important thing obtained from this study in terms of items writing/composing was that there were still packages written in Indonesian.. Although the time is still relatively short in studying French which has an impact on the limited mastery of vocabulary and grammar, writing test questions should still use French. The teachers should be able to arrange questions in French by paying attention on the level of vocabulary and grammar mastery of the students. The use of French in exam questions includes efforts to develop students' thinking skills because to be able to answer questions students are required to understand French vocabulary and grammar from the written or text that is read.

HOTS Implementation in learning process.

Assessment in education is not an independent process. It is closely related to the objectives and learning activities undertaken. Providing assessment with questions that require

higher thinking skills cannot be separated from goal setting and implementation of learning which also integrates thinking skills at the same level.

The implementation of the 2013 Curriculum according to Permendikbud No.22/2016 concerning standards process using 3 (three) learning models are expected to shape scientific, social behavior and develop curiosity. The application of several learning models such as project-based learning, problem-based learning, discovery / inquiry learning help teachers to be able to apply HOTS which are characterized inn learning by, namely 1) focusing on questions , 2) analyzing / assessing arguments and data, 3) defining concepts, 4) determining conclusions, 5) using logical analysis, 6) processing and applying information, and 7) using information to solve problems. Apart from these three models, other learning models can also be used such as cooperative learning which has several methods such as Jigsaw, Numbered Head Together (NHT), Make a Match, Think Pair-Shape (TPS) and so on.

To find out the objectives and learning activities carried out by teachers in schools whose examination instruments were finally used as a source of data in this study, the researcher used the lesson plan as a reference source to determine the implementation of HOTS in the French learning process in school. In addition to lesson plans, researchers also use in-depth interview techniques to dig up more information regarding this matter.

Of all the schools used, four out of five teachers have complete lesson plans for class X, while one teacher does not own but uses lesson plans made by French teachers from other schools. Some of the lesson plans that have been collected use the old form and the rest use the new form of lesson plans in accordance with Permendikbud No. 14 of 2019 concerning the simplification of lesson plan. The results of the analysis of the description of learning objectives as well as the steps listed in the learning plan prove that most of them have been formulated with attention to learning models that prioritize a scientific approach to train students' critical thinking by using, for example, project-based learning models and discovery learning. Based on the analysis of the learning steps contained in the lesson plans, it is known that some French teachers have implemented HOTS learning models/ methods, namely the scientific approach with the cooperative learning method and discovery/inquiry learning that directs students. to independently or in groups know, understand, apply and evaluate.

The ability to set goals and arrange steps and learning activities / methods in the lesson plan to develop students' ability in higher-order thinking is not evenly distributed among French teachers from the five schools. In addition, the results of interviews with teachers revealed conditions in the field that most teachers did not fully understand the meaning of higher thinking skills, learning steps that emphasized the scientific approach and compiled questions with HOTS characteristics. The discrepancy between the data contained in the lesson plans and the results of the interviews with the teachers shows that the lesson plans are still merely to fulfill administrative completeness.

Higher order thinking is not innate. This ability is the result of a habit that is continuously carried out. It is important for teachers to understand teaching methods that develop level thinking and apply them in teaching practice so that students become familiar with them. Morever, Nguyen *et al*. stresses that explicit instruction of HOTS in the learning and assessment could positively influence students' learning in terms of the learning process, performance in assessment, creativity, and motivation to learn [11].

The French syllabus for class X consists of eight basic competencies which based on interviews are usually divided into 5 basic competencies in odd semesters and 3 in even semesters. This depends on the active week that is in each semester. The syllabus is a learning plan for a group of subjects that includes competency standards, basic competencies, indicators, materials and so on. It is also the translation of competency standards and basic competencies

into subject matter/learning, learning activities, and competency achievement indicators for assessment. In addition, it is useful as a basic resource guide in developing further learning, starting from making lesson plans, managing learning activities, and developing an assesment system.

Looking at the description of the syllabus in French class X which consists of 8 basic competencies, it is known that the operational verbs for existing knowledge competencies are dominated by the verb 'exemplify'.. Based on the division of thinking level abilities according to the revised Bloom's taxonomy, this operational verbs are included in the C2 level (understand) and are found in basic competencies (KD) 3.1, 3.2, 3.3, 3.4, and 3.8. Likewise, the operational verb 'describe' which is used in KD 3.6 include in the C2 level. Whereas for KD 3.5 and 3.7 the operational verb used is to 'differentiate' which includes in the C4 level (analyzing) means category of higher order thinking (HOTS).

According to the Process Standards in the Regulation of the Minister of National Education (Permendiknas) Number 41 of 2007, competency achievement indicators are behaviors that can be measured and / or observed to show the achievement of certain basic competencies which are the reference for subject assessment. Competency attainment indicators are formulated using measurable operational verbs, which include knowledge, attitudes and skills. Not a few teachers directly reduce the formulation of basic competencies to become indicators of competency achievement . This is what ultimately affects the teacher in compiling the questions. If the indicators used have not shown the ability to think highly, it will be difficult to get questions, especially on the final exam which is included in the HOTS category.

Teachers' Understanding Level of HOTS.

To obtain secondary data related to teachers' understanding of HOTS and its implementation in objectives, learning process and evaluation of French, researchers used in-depth interview technique. It is done because there are only five respondents. In addition, with the absence of time restrictions, the information obtained is more than using a questionnaire. In connection with the current situation which is still during the pandemic of Covid-19, interviews were conducted through direct communication via WhatsApp (WA) one by one.

In this study, researchers used semi-structured interviews. This means that researchers do not use interview guidelines that have been arranged systematically and completely for data collection. The interview guide is used only in the form of an outline of the problems to be carried out.

Before conducting the interview, the researcher first made an interview guide that was designed with the aim that the implementation of the focused interview and the topics discussed did not go too far from the research objectives. But in implementation, researchers can ask additional questions in order to find problems and deeper answers. Guidelines or outlines of questions regarding the preparation of final semester exam questions, teacher knowledge of HOTS and implementation or integration of HOTS in class X French learning.

Regarding the writing items of the test, the results of the interviews show that time constraints and ease of correcting are reasons for most teachers to choose the multiple choice form (5 choices). The time allocated to work on 40 - 45 questions ranges from 60 - 90 minutes. Furthermore, only around 50% of the questions tested on the final examination of class X were composed by the teachers themself. The purpose of composing by yourself in this case is that the teacher designs, compiles questions and answer choices without imitating questions on the internet or other sources. For the rest, the teacher uses sample questions available from internet sources or handbooks (méthode de français) such as LeMag ', Adomania and others.

The suitability of the questions with the material being taught and the difficulty level of the questions are what the teacher takes into account in compiling the items. The level of thinking required in the problem is not of concern. In addition, the questions given on the exam are generally questions of the same type given in practice during the learning process or questions in daily tests are only changed for less significant parts such as names, numbers etc. The number of new questions tested is less than 25%.

The next question is the teacher's level of understanding about cognitive levels based on Bloom's taxonomy and the revised version, the definition of HOTS, the classification of LOTS and HOTS level, learning characteristics and instruments with HOTS characteristics. Almost all teachers stated that they did not understand this. Some know the term HOTS from training/seminars in which it was mentioned. There is only one teacher who has attended special HOTS training. The teacher's lack of understanding of HOTS has an impact on the preparation/writing of questions for exam that do not consider higher-order thinking skills on them.

Most teachers have heard of several learning models that can be used to develop students' cognitive levels such as discovery/inquiry learning, project-based learning, problem-based learning, cooperative learning, but they do not understand how to perform or how to structure learning using these methods. . In practice, learning is still carried out traditionally or teacher-centered in which teachers are the main source of information.

To organize HOTS-type learning as well as to prepare HOTS assessement requires of course the teacher's mastery of HOTS itself. Without that, it is likely impossible if students can also develop their high order thinking skill. In fact, teacher's knowledge about thinking skills and pedagogy are the most important factors influencing the implementing thinking skills [12].

4 Conclusion and Suggestion

4.1 Conclusion

This study aims to identify the cognitive level of items contained in the French final exam questions for class X. In addition to the cognitive level, this study also analyzes whether these items contain HOTS characteristics. The results of the analysis show that the French class X questions taken from 8 package of questions covering five schools in Lampung have already contained questions that measure students' higher order thinking skills. However, this type of problem is still in a very low percentage. The results of the analysis show that the composition of the questions on the exam already contains questions with HOTS characteristics consecutively as follows : remembering/C1 (36.78%), understanding/C2 (53.16%), applying/C3 (7.47%), analyzing/C4 (2.58%). The level of C2 or understanding dominate the questions. The analyses of HOTS characteristics such as measuring the higher thinking level, divergent, multiple representations, based on contextual problem and various types of questions in items writing shows that majority of the items do not meet the criteria. The use of questions or items which demand the mastery of grammar is still significant. The domination of multiple choice objective test are poorly treated which do not allow the students think creative. Based on the interview with the teachers, it was revealed that most teachers are not familiar with higher order thinking skill. This ignorance resulted in a lack of attention to integrating HOTS in the French language learning and evaluation process. On the other hand, the description of basic competencies in French syllabus that they use as reference in determining objectifs dan learning process does not relfect either the higher thinking order.

4.2 Suggestion

Teaching is an activity that requires careful preparation. starting from formulating indicators, setting goals, compiling learning steps and also preparing assessment/ evaluation instruments. The writing of items in the evaluation is not independent of other learning aspects. It can not be held without support of the others. It all comes down to achieve the educational goals. Integrating HOTS in process and evaluation activities also requires extra effort and intention from the teacher because teaching is not only transferring knowledge but building characters. Ability of high level thinking is not innate but results of habits. Therefore, teachers must apply this habit in every aspect of learning. Difficulty is not same as higher order thinking skill. HOTS is not intended for high achiever students, but can be given at any level of education. It is the teacher's duty to adjust according to the level of mastery of the students.

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Analysis of Mathematics Learning Outcomes in Elementary School Students as Efforts to Implement HOTS-Based Learning

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Abstract. This study aims to analyze the mathematics learning outcomes of elementary school students using Higher Order Thinking Skills (HOTS) -based learning. HOTS-based learning is expected to improve student competence, especially in higher-order thinking skills, namely the ability to think critically, creatively, and analytically. This research is preliminary data to determine student learning outcomes. This research was conducted in 5 elementary schools in 5 clusters located in Girimarto District. The study was conducted with a total of 106 students, with details of 53 male students and 53 female students. The results of the analysis show that the students' high-order thinking skills are still in the low category. This is evidenced by 46.86% of students mastering the critical thinking component, 37.50% of students mastering the creative thinking component, and only 30.82% of students mastering the analytical thinking component. The average of the three components is 37.61%. This study recommends the application of the Problem Based Learning (PBL) learning model as an effort to improve mathematics learning outcomes of elementary school students. It is expected that students' higher-order thinking skills will be more honed so that they can become provisions in the future. PBL learning model is a learning model that can improve students' higher-order thinking skills. This learning model allows students to learn by doing and applying ideas obtained from available data or information.

Keywords: Higher Order Thinking Skills (HOTS), mathematics learning outcomes, Problem Based Learning (PBL)

1 Introduction

The Indonesian Ministry of Education and Culture has started implementing national standards for mathematics, namely the use of high-level reasoning / high-order thinking, or better known as Higher Order Thinking Skills (HOTS). In this case, the government hopes that by implementing HOTS-based learning, students can achieve various competencies. Competencies to be achieved include critical thinking, creative and innovative thinking, communication skills, collaboration skills, and confidence [1]. Learning thinking skills must be used as a part of the applied curriculum if students are to be able to solve each problem individually, cooperatively and creatively. In addition, teachers must also be fluent in mastering the techniques needed to teach on a high-level thinking basis. A literature review shows that

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teachers are generally faced with the problem of how to prepare and teach higher-order thinking skills in educational technology and design. Some components of higher-order thinking are the use of concepts, conclusions, visualization, and schemes [2].

Learning is closely related to three aspects, namely cognitive, affective, and psychomotor. Within each domain there are several levels of learning that progress from fundamental learning to more complex and deeper learning [3]. HOTS-based learning is very supportive in improving these three aspects. HOTS-based learning also requires students to be active in teaching and learning activities. The phenomenon that is still widely encountered is that the material in mathematics is only limited to the transfer of knowledge from teachers to students. This is what often results in students lacking in higher order thinking activities. For example, applying formulas in solving math problems. Students tend to only know the formula and then apply it in solving problems, without knowing how the formula can be created. When students do not know the concept, it will cause them difficulties if they are faced with the same questions but have been given variations. Therefore, the teacher's role is very important in HOTS-based learning activities. One learning model that can improve students' high-level thinking skills is a problem-based learning model or what is commonly called Problem Based Learning (PBL). This learning model allows students to learn by doing and implementing ideas. If this model is applied in schools, it will improve students' higher order thinking skills. This results in the achievement of learning objectives so that the quality of the school increases.

Problem Based Learning (PBL) deserves to be considered as one of the 21st century learning models that can place HOTS improvements as the goals and needs of students. PBL is a pedagogical approach that provides opportunities to achieve learning objectives. The main key of PBL is that learning must be done in a real way [4].

1.1 Learning outcomes

Learning outcomes have an important role for meaningful education. Learning outcomes are very important because they can serve as a diagnosis and can improve the quality of the teaching and learning process. Emphasis on student learning outcomes has become more important in many countries in recent years. There has been increasing interest in developing comparative measures of learning outcomes aimed at dealing with trends in higher education, paradigm shifts and challenges [5]. There are five types of learning outcomes that have been widely accepted. These categories are intellectual skills (procedural knowledge), verbal information (declarative knowledge), cognitive strategies (executive control processes), motor skills, and attitudes [6]. Learning outcomes are seen as something students can do now, which could not be done before.

There are six areas of measurable learning outcomes, namely: critical thinking, communication, career and teamwork, responsibility, understanding, and development [7]. Student learning outcomes provide a direct measure of a student's academic ability and are considered a powerful tool for evaluating the impact of learning at school on students. Satisfactory student learning outcomes also have an impact on schools and institutions engaged in education. It can also influence policy makers. Even though it has an impact on various areas of life, students still think that the learning outcomes they get do not have any influence on them. So that students are less motivated to improve learning outcomes. Satisfactory learning outcomes are also influenced by several factors, namely student ability, learning motivation, the role of teachers, facilities and infrastructure and others [8].

Evaluation of individual learning outcomes can help a school or institution improve its performance, promote learning opportunities, and improve the school's long-term goals.

Comparison of student learning outcomes through learning activities is very important to understand whether the programs implemented by schools are appropriate and can improve school quality [9]. Competence and student learning outcomes aim to improve school performance and students themselves. Learning that is carried out in order to improve student learning outcomes needs special attention, namely by sorting specific and general lessons as an integrated approach to knowledge, understanding, skills, abilities and attitudes.

1.2 Higher Order Thinking Skills (HOTS) based learning

It is not enough for students to only master the fields of reading, writing and counting, but students also need to develop higher-order thinking skills such as critical reading / literacy, critical computing, and cross-curricular competencies. HOTS is divided into two contexts, namely the skills used to solve problems and make decisions in everyday life [10].

HOTS is a skill to transfer or apply what students have, then the information is learned into a new context. HOTS acts as critical thinking and problem solving skills. In the context of problem solving, HOTS involves analyzing information to determine problems, evaluate problems and create new workable solutions. HOTS can be taught and can be learned. HOTS development is not only to develop students' cognitive but also to develop individuals to become versatile. HOTS is a skill that allows students to find solutions for real life or certain professions. The problem in question is one that cannot be solved using only memorization solutions but a combination of different skills, so it is referred to as logical analytical reasoning, reflective thinking and evaluating creative skills, and developing creative problem solving strategies. Problem solving is important for developing critical thinking, creative thinking, and effective communication [4].

Critical thinking skills. Critical thinking skills are a thinking process that aims to make rational decisions that are directed to decide what to believe or do [11]. Critical thinking is a process of knowledge and skills deployed to solve problems that arise, make decisions, analyze all assumptions that arise and carry out investigations based on the data and information obtained so that they can produce a conclusion. Critical thinking is the term most people associate with higher order thinking skills (HOTS). Critical thinking is wise thinking. This begins with the hope that the wisdom received will be one of the valid views. Critical thinking involves an explicit comparison of possible explanations, theories, and models [12].

It should be noted that all disciplines such as mathematics, physics, chemistry, biology, geography, sociology, anthropology, history, philosophy, and so on, require critical thinking skills in their material. For example, in mathematics, it is not enough just to know and memorize the formulas but to do mathematical thinking. Likewise with science, not only material in books but also thinking scientifically. This shows the importance of critical thinking skills in various aspects of life [13].

Critical thinking is now widely seen as a basic competency, such as reading and writing, that needs to be taught. Studying critical thinking involves trying to change the way we think. To do this we need extensive practice and feedback. Critical thinking is a way of thinking about the subject, content or content, or any problem where the thinker improves the quality of his thinking by skillfully sorting out the ideas they get [14].

Creative thinking skills. The main function of education is to train individuals to have self-confidence, have curiosity, creative and innovative abilities, and also be able to understand differences. Learning ways or methods to pay attention to students who have such characteristics

are needed so that all students are brought to a point where they can think about the source of the problem and the solution. Creative thinking, a thinking skill, includes skills such as facilitating individual learning with the realization of their imagination, giving them opportunities to think, expressing ideas easily and getting them to get new information. To spread creative thinking in the school environment, the teaching and learning environment must be arranged in such a way that students can increase their creativity in that field. Thus, appropriate teaching methods, strategies and techniques should be used when achieving this [15]. It is important to note that the talented individuals who are present in every society in the number of 2-3% are trained according to their respective fields [16].

The term 'creativity' or 'creative thinking' is considered to refer to new insights, approaches, perspectives and ways of understanding and understanding something. The creative output includes several clear points such as poetry, dance, music, dramatic literature, and technical inventions and innovations. In addition, creative thinking can also be a way of asking questions that expand knowledge, find solutions to problems, or how to understand things from a different point of view [17]. Critical thinking and creative thinking will play an important role in preparing students to be able to solve a problem well, be able to make appropriate decisions and conclusions, and be able to take responsibility for them.

Analytical thinking skills. Analytical thinking skills include learning to determine pieces of information that are relevant or important (differentiating), determining ways to organize these pieces of information (organizing), and determining the purpose behind that information (attributing) [18]. Analytical thinking is a thought process that leads us to better decisions. First, it starts with creative thinking by weighing possible options for the problems we face, and then using analytical thinking processes to come up with better alternative solutions. Analytical thinking basics are used to encourage us to have alternative choices, and then gradually focus more on those choices [19].

Analytical thinking skills are needed when ambiguous situations occur, requiring students to identify and solve problems. Reasoning is a skill that is an important element for students to do problem solving and analytical thinking. That is, when the environment requires students to produce reasoning, then that is where the role of analytical thinking begins to appear [20]. Analytical thinking is the abstract separation of the whole into parts in order to study the parts and their relationships. Activities in analytical thinking are as follows: analyzing, arranging, connecting, dividing, separating, classifying, comparing, contrasting, explaining, choosing, sequence, details, correlation, diagram, discrimination, focus, discrimination, describing, concluding, outlining, prioritizing, divide and show [21].

1.3 Learning Model Problem Based Learning (PBL)

Problem-based learning (PBL) is an educational approach where a problem becomes the starting point of the learning process. Problems that arise are adapted to real life, then modified in such a way as to meet educational goals and criteria. Problems can also lead to hypotheses that are used as basic principles in the learning process. This is because these problems can determine the direction of the learning process and emphasize the formulation of questions rather than answers. This also allows the learning process to increase student motivation and understanding [22]. PBL is a pedagogical approach that allows students to learn while actively engaging with meaningful problems. Students are given the opportunity to solve problems in their environment, creative models in learning, and get used to independent learning through

practical learning and reflection. Hence, the philosophy underlying PBL is that learning can be considered as "constructive, self directed, collaborative and contextual".

In the principle of constructivism, it positions students as information seekers who organize new experiences that are relevant to their daily lives or previous knowledge. In addition to enabling students to understand the subject matter and its concepts, this learning experience also tends to be able to help students develop an understanding of themselves, as well as the ways or situations that make them learn effectively. PBL as a pedagogical strategy of interest to many educators. This is because this method is able to offer an instructional framework that will support active and group learning processes, based on the belief that effective learning will be realized when students are able to build and continue to build ideas through social interaction and directed learning [23].

PBL is a learning approach that focuses on dissecting and discussing problems or cases in small groups which are usually supervised by one or more expert tutors or instructors [24]. Problem-based learning refers to unstructured problems that are messy and complex in nature, which in their solution require investigation, information gathering and reflection. Problem-based learning is focused on hands-on learning that is organized based on investigating and solving real-world problems. Problem-based learning includes three main characteristics, namely: 1) making students stakeholders in problem situations / learning processes. 2) regulate the application of the curriculum around holistic issues, thus enabling the learning process of students in ways that are relevant and connected to one another; and 3) creating a learning environment that supports teachers to train students' thinking and guide student questions, and facilitates deeper levels of understanding [25].

2 Methodology

According to Ryan et al. (1992) in his book entitled Research Methodology in Finance and Accounting research is a process of intellectual discovery, which has the potential to change our knowledge and understanding of the world around us [26]. This study aims to analyze the students' ability in doing HOTS-based questions, especially in mathematics. HOTS-based learning is expected to improve student competence, especially in higher-order thinking skills, namely critical, creative, and analytical thinking skills.

2.1 Sampling and Data Collection

This research was conducted in 5 elementary schools in 5 clusters located in Girimarto District. The study was conducted with a total of 106 students with details of 53 male students and 53 female students. Data on the number of students in each primary school are as follows:

a. SD Negeri 1 Jatirejo totaling 20 students
b. SD Negeri 4 Girimarto as many as 23 students
c. SD Negeri 2 Bubakan totaling 28 students
d. SD Negeri 3 Gemawang as many as 15 students
e. SD Negeri 1 Waleng as many as 20 students

2.2 Research Instruments

Data collection was carried out through questionnaires, interviews, and tests. The test questions consisted of 5 questions which contained three components, namely critical, creative, and analytical. The indicators for each component are presented in Table 1.

Table 1. HOTS Based Learning Indicators

Number	Component	Indicators
1	Critical	Able to formulate problem points.
		Be able to reveal the facts needed to solve a problem.
		Able to prove right or wrong against something that has been studied and concluded.
2	Creative	Able to provide various interpretations of a picture, story or problem.
		Able to detail an object so that it becomes interesting.
		Be able to find other ways of working on existing problems.
3	Analytical	Be able to determine the pieces of information that are relevant and important.
		Be able to show the purpose and the relationship between the pieces of information available.
		Able to organize available information elements.

2.3 Data analysis

This research was conducted to analyze the success of students in mathematics using HOTS-based learning. In this study, researchers conducted interviews, observed, distributed questionnaires, and provided test questions for students. The test questions were given before and after the application of HOTS-based learning.

3 Results and Discussion

3.1 Results

This study emphasizes the students' abilities in higher order thinking activities which consist of 3 components, namely critical, creative, and analytical. Students are said to be able to master HOTS-based learning if they have critical, creative, analytical thinking about information and data in solving problems. HOTS-based learning is expected to help teachers and students achieve learning goals and can improve student learning outcomes in mathematics.

Research conducted by Fanani and Kusmaharti (2018) [27] entitled "Development of HOTS (Higher Order Thinking Skill) Based Learning in Class V Elementary Schools" shows that learning development is able to produce total learning outcomes (91%) in learning. This proves that HOTS-based learning can significantly improve learning outcomes.

Another study also conducted by Chabeli (2006), entitled "Higher Order Thinking Skills Competencies Required by Outcomes-Based Education from Learners" shows that thinking skills are needed to improve learning outcomes because the results will later be used while in the world of work. The competencies and skills that are owned can be a provision for lifelong

learning. Both teachers and students will be faced with challenges in the future so that this competency will be very useful for life [28].

Hugerat & Kortam (2014) in their research entitled "Improving Higher Order Thinking Skills among freshmen by Teaching Science through Inquiry" said that the learning method had a significant influence on HOTS development. There was an increase in the pre-test and post-test which showed the effect of the application of learning methods [29].

Based on previous research, HOTS-based learning can affect learning outcomes. Based on the observations that have been made in this study, the use of students' higher thinking skills is still lacking so that it affects the low learning outcomes. Students still need guidance from the teacher to improve their thinking skills because this competency will be a provision in the future to deal with various problems that occur.

Table 2. Student Learning Outcomes Before Implementing HOTS Based Learning

Number	Component	Yield Percentage (%)
1.	Critical	46,86
2.	Creative	37,50
3.	Analytical	30,82
Rata-rata		37,61

Based on the data from the table above, it can be seen that the average of the three components in HOTS is still in the low category. As much as 46.86% of students mastered the critical thinking component (*see the blue part*), 37.50% of students mastered the creative thinking component (*see the red part*), and only 30.82% of students could mastered the analytical thinking component (*see the grey part*). The average of these three components is 37.61%. The diagram of the three components can be seen in Figure 1.

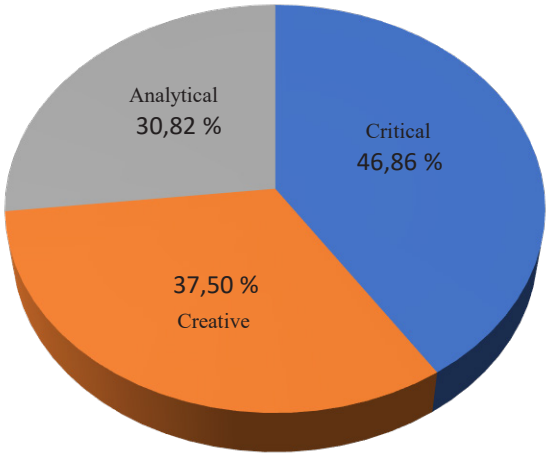

Fig. 1. Percentage of Student Learning Outcomes

The low student learning outcomes can be seen in the diagram above. Therefore it is necessary to modify the learning activities so that student learning outcomes can be maximized and achieve the best results. Researchers hope that the implementation of HOTS-based learning

in teaching and learning activities can have a good impact on student learning outcomes. HOTS learning emphasizes critical, creative, and analytical components, which in addition to improving student learning outcomes can also be used as provisions for students to face the future.

3.2 Discussion

Based on the results of observations, interviews, and tests conducted, out of 106 male and female students, 46.86% of students mastered the critical thinking component, 37.50% of the students mastered the creative thinking component, and only 30.82%. students who can master analytical thinking. The average of these three components is 37.61%. This shows that students' high-order thinking skills are still low. Based on the research results, it can be seen that most of the male students who get low scores on the three HOTS components. Based on research conducted by Lim and Morris (2009), it shows that age, previous experience, the teacher's delivery format, and the student's average learning time are some of the factors that differentiate student learning outcomes [30].

In a study conducted by Stanley, he said that the bloom taxonomy has the highest 3 levels in learning activities, namely analysis, synthesis, and evaluation, all of which are Higher Order Thinking Skills. If students want to learn how to think critically and intelligently , then they must be equipped with proper teaching. Schools still rarely apply HOTS-based learning. Even though they have started to do so, their implementation is still not effective [31].

This condition is still common in various elementary schools in Girimarto District. The school still applies ordinary learning that has not implemented HOTS-based learning. Thus, many students also experience difficulties when faced with questions that require students to think critically, creatively, and analytically. HOTS learning can not only improve higher order thinking skills but also can help students to improve learning outcomes. Thus it will help students at the next level of education. Teachers in Girimarto Subdistrict still do not understand the HOTS-based learning concept so they have difficulty making learning designs that can improve students' thinking skills. Some things that can be done are providing trainings for teachers to design learning that can improve students' thinking skills, besides that learning is fun so that student interest in learning activities is high. One learning model that can improve students' HOTS skills is the Problem Based Learning (PBL) learning model.

3 Conclusion and Recommendation

3.1 Conclusion

Student learning outcomes in learning are still in the poor category, therefore the use of HOTS-based learning. HOTS-based learning provides concrete examples of how teachers should design lessons that can improve higher-order thinking skills which include critical thinking, creative thinking, and analytical thinking. This learning can train students' thinking skills to find various alternative solutions to problem solving, think deeply, and be able to describe the information obtained. At school, students get a little HOTS-based learning. When questions or materials concerning HOTS arise, students have difficulty identifying them. Teachers are still lacking in supporting the line of reasoning to draw conclusions or explain their judgments. Teachers and students need to work together in carrying out HOTS-based learning

activities to improve student learning outcomes. This can be done by applying the Problem Based Learning (PBL) model to improve students' higher order thinking skills.

3.1 Recommendation

This study recommends schools in Girimarto District to apply the Problem Based Learning (PBL) learning model to improve students' higher order thinking skills. Due to the low ability of students to solve HOTS-based questions, it is necessary to have a learning design that can train students' thinking skills. In this regard, the Education Office in Central Java also needs to facilitate training for teachers to apply learning models that can improve student learning outcomes as well as students' higher order thinking skills. In addition, students need to be given the understanding that learning outcomes and thinking skills are very important for students because they will be used by students as provisions for the next level of education and in the future.

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Literary Works Based on Environment As Teaching Materials in Literature Learning Oriented Environmental Education

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Abstract. Awareness toward the environment is built by perspectives on the environment. Ecocentric and anthropocentric perspectives are the main things that indicate the extent of human attitudes/behavior towards the environment. Literature learning oriented environmental education becomes an alternative in efforts to build an ecocentric perspective of students towards the environment. The teaching materials that can be used in the learning are literary works (short stories and novels) that raise environmental issues. This study aims to describe environmental-themed literary works that can be used as teaching material in literature learning oriented environmental education. This study uses a qualitative method with an ecocriticism approach. Data analysis techniques in this study were (1) identifying; (2) classifying; (3) describing; (4) analyzing; and (5) conclusions. The results show that environmental-themed literary works that can be used as teaching material in literature learning oriented environmental education among them: short stories *Jeritan Tengah Malam* by Makhfud Ikhwan, *Ki Pawon* by Hery Nurdiansyah, *Yang Terpenjara Waktu* by Zhizhi Siregar, *Al-Fatihah untuk Pohon-pohon* by Muliadi GF, *Lais* by Nenden Lilis, *Derai dan Luruh* by D. Nilasyah. Besides short stories, there are also novels, among them *Kelomang* by Qizink La Aziva, *Dari Rahim Ombak* by Tison Sihabudin Bungin, *Pincalang* by Idris Pasaribu, *Qozan* by Imogail Zam Zami, and *Baiat Cinta di Tanah Baduy* by Uten Sutendy.

Keywords: literary works based on environment, teaching materials, literature learning, environmental education

1 Introduction

The environmental crisis has become an environmental problem nowadays. Ecological crisis began to be voiced since the 1960s, where most people began to rethink their relationship to nature when humans' action begin to threaten the balance of nature and alienate humans with life other than themselves. At its peak, in the 1980s, almost certainly everyone's awareness was sucked into the problem, even scientific articles that discussed this issue increased sharply.[1]

Indonesia as one of the industrialized countries, is one of the major contributors in the extinction of biodiversity, global warming, and the destruction of marine ecosystems. Besides, Indonesia is considered the largest forest destroyer in the world because the level of forest destruction in Indonesia is very high.[1] In fact, according to Greenpeace, about 70 percent of the environmental destruction in Indonesia is caused by mining.[1]

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This proves that the ecological crisis occurs because humans exploit nature excessively. Besides, according to Thathong, those previous strategies proposed were more of control and treatment rather than prevention. Consequently, these environmental crises can be seen to emanate mainly from human activities due to their attitude and behavior towards nature.[2]

This attitude is based on the human perspective on nature which tends to be anthropocentric, namely the perspective that human interests are more important than natural interests as expressed by Buell that anthropocentricism is the assumption or that the interests of humans are of higher priority than those of nonhumans.[3]

Environmental awareness is built by a perspective toward the environment. Ecocentric and anthropocentric perspectives are the main things that indicate the extent of human attitudes/behavior towards the environment. Therefore in resolving such problems, special attention needs to be placed on increasing the knowledge of the populace and thereby inculcating a positive attitude and behavior towards the environment. This can be achieved by effective implementation of environmental education.[4]

Literature learning oriented environmental education is an alternative in an effort to build a student ecocentric perspective toward the environment. The goal of such a programme is to change the behaviour of learners 'and to translate acquired knowledge into action' in order to preserve or minimize the detrimental effect on the environment.[5] Besides, Environmental Education is seen as a process of infusing into the educational system environmental content in order to enhancethe awareness of the people on environmental issues at all levels of education. It is an approach to education which is hoped to bring some solutions to the deterioration relationship between man and the environment.[4]

Environmental education can be integrated into literature learning, at the elementary school, junior high school, senior high school, and university levels. The method or strategy in integrating environmental education in literature learning is to select and apply teaching materials in the form of environmental-themed literary works in Teaching and Learning Process. The teaching materials for literary works that can be used as an alternative literature learning oriented environmental education in this study are short stories and novels.

The short stories and novels consist of the short story *Jeritan Tengah Malam* by Makhfud Ikhwan, *Ki Pawon* by Hery Nurdiansyah, *Yang Terpenjara Waktu* by Zhizhi Siregar, *Al-Fatihah untuk Pohon-pohon* by Muliadi GF, *Pudarnya Impian 'Uma* by Khoirriyah Az-zahro. Apart from short stories, there are also novels, consist of novel *Kelomang* by Qizink La Aziva, *Dari Rahim Ombak* by Tison Sihabudin Bungin, *Pincalang* by Idris Pasaribu, *Qozan* by Imogail Zam Zami, and *Baiat Cinta di Tanah Baduy* by Uten Sutendy.

The reason for choosing this literary work is because the literary works (short stories and novels) have the theme of the environment or raise environmental issues. Among them are the issue of species extinction due to deforestation for the construction of houses/villas, destruction of hills and karst due to limestone mining, natural damage due to illegal logging, and extinction of trees due to road widening, efforts to save the environment from planned sea sand mining projects, environmental damage due to bombing coral reefs, destruction of mangroves due to illegal logging and destruction of coral reefs due to bombing, and destruction of forests due to illegal logging.

To determine the extent to which the teaching materials used in environmental education-oriented literature learning, the short stories and novels are analyzed and studied using ecocriticism theory. Garrard stated the eco-criticism analysis is interdisciplinary that extends to other disciplines, namely literature, culture, philosophy, sociology, psychology, environmental history, politics and economics, and religious studies. Besides, ecological knowledge is not only

to see the harmony and stability of the environment, but also to know human attitudes and behavior. [6]

Based on these problems, the problem formulations to be discussed in this study are (1) How are environmental themes/ issues described in literary works which are used as teaching materials; (2) How is the selection of environmental-themed literary teaching materials in literature learning oriented environmental education?

2 Method

This research uses qualitative research with an ecocriticism theory approach. The stages in the research are as follows. First, determining the source of the data, which is collecting data that is relevant to the formulation of problems about environmental-themed literary works or those that raise environmental issues. Primary data are literary works (short stories and novels) with the theme of the environment. The short stories are *Jeritan Tengah Malam* by Makhfud Ikhwan, *Ki Pawon* by Hery Nurdiansyah, *Yang Terpenjara Waktu* by Zhizhi Siregar, *Al-Fatihah untuk Pohon-pohon* by Muliadi GF, *Lais* by Nenden Lilis, *Derai dan Luruh* by D. Nilasyah. Besides short stories, there are also novels, among them *Kelomang* by Qizink La Aziva, *Dari Rahim Ombak* by Tison Sihabudin Bungin, *Pincalang* by Idris Pasaribu, *Qozan* by Imogail Zam Zami, and *Baiat Cinta di Tanah Baduy* by Uten Sutendy. Secondary data are various references to ecocritical theory and environmental education related to environmental themes or issues.

Second, data classification. At this stage all data sources, both primary and secondary data, are classified based on the research formula. Third, data analysis, namely applying ecocriticism theory in analyzing primary data and relating it to environmental education according to data that has been classified based on the research formula. The fourth step is to conclude the data obtained from the discussion based on the results of analysis and interpretation.

3 Discussion

3.1 Environmental Themed Indonesian Literary Works

Indonesian literary works that can be used as teaching materials in environmental education in literature learning are literary works that raise environmental issues. Literary works discussed in this research are literary works in the form of short stories and novels. These literary works consist of the short story *Jeritan Tengah Malam* by Makhfud Ikhwan, *Ki Pawon* by Hery Nurdiansyah, *Yang Terpenjara Waktu* by Zhizhi Siregar, *Al-Fatihah for Pohon-pohon* by Muliadi GF, *Pudarnya Impian 'Uma* by Khoirriyah Az-zahro. In addition, novel of *Kelomang* by Qizink La Aziva, *Dari Rahim Ombak* by Tison Sihabudin Bungin, *Pincalang* by Idris Pasaribu, *Qozan* by Imogail Zam Zami, and *Baiat Cinta di Tanah Baduy* by Uten Sutendy.

Environmental Issues in Short Stories. The short stories discussed below raise environmental issues. Among them are species extinction due to deforestation for the construction of houses/villas, destruction of hills and karst due to limestone mining, natural destruction due to illegal logging, and extinction of trees due to road widening,

Short Story of Jeritan Tengah Malam by Makhfud Ikhwan. This short story is summarized in an anthology of short stories from Indonesia–Malaysia published in 2013 that raises environmental issues as a central issue in the story. The theme raised in the short story is about the primacy of ape species because the ape habitat (forest) no longer exists as a result of deforestation for the purpose of building housing. This is as illustrated in the following quote.

> *"Aku menunjuk ke arah tebing. Telunjukku kuarahkan tepat ke lambung sebelah utara yang krowak oleh garukan ekskavator warna kuning. Watu sepur sudah jadi masa lalu. Separuh gerbongnya, dari arah ekor, telah runtuh beberapa tahun lalu. Sementara hutan jati rimbun di atasnya telah lebih dahulu digunduli."* [7]
> *"Tebing yang jadi rumah mereka (monyet-monyet) sudah habis, dikeruk dibuat semen."*
> *"Untuk apa, Yah?"* [7]
>
> *"Ya, untuk pembangunan. Untuk membangun rumah-rumah orang di kota. Rumah Pak Menteri, rumah Pak Presiden, juga rumah kita."* [7]

These short stories excerpts from *Jeritan Tengah Malam* show the destruction of the forest by clearing the teak forest which was previously thick due to housing construction. Besides, the result of forest destruction has caused the extinction of species, namely the monkeys that previously existed and lived there.

Short Story of Ki Pawon by Hery Nurdiansyah. In Ki Pawon's short story, environmental issues are described as central issues. The short story takes the theme of changes in village conditions in West Java due to limestone mining. Meanwhile, the message the author wants to convey through the short story is about the importance of preserving the beauty of the environment.

The short story contains about the condition of villages in West Java which are no longer beautiful due to limestone mining carried out not only by the company, but also community elements who do not have environmental awareness. The mining causes environmental damage due to the destruction of hills and karst using not only modern equipment such as a bulldozer backhoe, but also traditional equipment such as crowbars (a sharp piece of metal used for digging hard soil, chopping rocks, etc.) or a knife. This is illustrated in the following quotations.

> *"Aku jadi ingat kejadian seminggu yang lalu. Separuh Pasir Tanjung telah dirusak dan dihancurkan, termasuk salah satu gua yang ada di puncaknya. Ini dilakukan olehku dan para penambang batu kapur lainnya. Secara sporadis bongkahan-bongkahan batu gamping di dalam gua itu kuhancurkan dengan dinamit, tanpa melihat adanya nilai sejarah dan budaya purba yang dikandungnya. Oh, aku menyesal. Sungguh, aku memang tak tahu-menahu akan hal itu."* [8]
>
> *"Datanglah ke desaku sekarang! Bersiaplah melupakan bayangan kalian tentang desaku yang elok dan memesona itu. Relakanlah bayangan kalian tertiup hembusan angin yang bercampur dengan pekatnya debu-debu batu kapur atau bahkan tercabik-cabik oleh pongahnya tangan bercakar bulldozer backhoe, seperti tercabik-cabiknya bongkahan-bongkahan batu kapur di bukit-bukit karst itu. Lihatlah pemandangan yang ada dan cermatilah adanya. Sesekali kalian akan memperoleh sensasi ketegangan luar biasa, ketika melihat para penambang batu kapur tradisional serta merta tiada ragu memanjat dan bergelantungan di sisi tebing terjal dan rapuh itu. Demi upah tiga puluh ribu rupiah. Tak ada yang menjamin keselamatannya. Mereka hanya bergantung pada tali tambang yang*

dililitkan ke badan sekadarnya. Tangannya memegang linggis yang mereka fungsikan untuk mencongkel kepingan-kepingan batu kapur. Mereka seakan tak mau kalah berpacu dengan bulldozer backhoe tadi."[8]

Yang Terpenjara Waktu By Zhizhi Siregar. This short story tells the story of a woman who cannot forget the memories of her late husband (Dewakinara) and her daughter (Limara) who really loved the culture, hospitality, and philosophy of life of the Toraja people as well as the natural beauty of the Land of Toraja, which year after year its beauty subsided due to illegal logging of the limara tree carried out by illegal loggers on the orders of one of the country's top officials. Apart from that, the short story also describes the memory of the death of her husband and child as the result of being poisoned by the accomplice of the country's top officials who took revenge because she and her husband exposed illegal logging and sent him to prison.

This is described in the following quotation.

"Kamu tetap di sini," bisik Dewakinnara. Ia mengganti lensa kameranya menjadi lensa jarak jauh. Perjalanan singkat ke hutan ini seharusnya sekedar bertemu burung-burung unik untuk foto Dewakinnara dan bahan makanan untuk menu baru restoran Indonesiaku. Tapi sialnya kami bertemu dengan para pembalak yang sudah pasti liar, karena ini hutan lindung. Kalau masih ragu, senapan-senapan yang mereka sampirkan di dada tentu bisa memberi penegasan sendiri.[9]

Al-Fatihah untuk Pohon-pohon By Muliadi GF. This short story tells of a girl named Akilah, who loved the trees since she was born and thinks that the trees which growing in her yard were her friends. Like Akilah, their father, mother, and grandmother also loved trees that grew in their yard which were always watered, cared for, and prayed for every day so that these trees would grow. Until one day Akilah had to lose her grandmother who died because she was hit by a vehicle. In addition, she had to lose the trees that had been watered and cared for by her family because the yard which was full of trees was taken for road widening. Akilah felt sad because she had lost them (her grandmother and the trees that she thinks her friends) and she could only pray and send al-fatihah to her grandmother and the trees that she loved.

This respresented in the following quotation.

"Apalagi, ketika jalan itu dilebarkan, halaman kami diambil banyak, banyak pohon yang ditebang, mati. Karena semua itu, untuk beberapa waktu lamanya saya musuhan dengan jalan raya." [10]

Pudarnya Impian 'Uma By Khoirriyah Az-zahro. Khoirriyah Az-zahro packaged her story by inserting environmental issues in her short story *Pudarnya Impian 'Uma* by describing the condition of the Martapura River which is no longer clear due to being contaminated by black chunks of coal as a result of coal mining. This is illustrated in the following quotes.

"Ke hadapan sungai yang tak lagi bening, Aku menggugat. Mengapa Ia tega membiarkan mereka melupakan kisahnya, hingga Uma' harus memudarkan impian-impian itu?"[11]

"Suara kapal tongkang batu bara tiba-tiba mengusik aktivitas bersantapku. Dengan sisa nasi yang terkunyah, kutuju sungai di belakang rumah. Segera pandanganku dipenuhi oleh

bongkahan-bongkahan hitam menggunung yang berlalu santai pada permukaan sungai."[11]

The environmental issue is not a central issue that is told in this short story because this short story discusses the fading dream of an old woman who longs for *the lanting house*, namely the traditional raft house of the Banjar tribe in South Kalimantan with a floating raft foundation consisting of three wooden tree trunks that the big one. Even so, the author tries to include environmental issues in the short story by depicting the setting of the place, namely *Martapura* River which has been contaminated by coal waste due to coal mining. This implies that the author wants to try to convey that excessive exploitation of natural resources (coal mining) will cause environmental damage (rivers polluted with coal waste).

Environmental Issues in Novels. The novels discussed below raise environmental issues, namely about efforts to save the environment from planned sea sand mining projects, environmental damage due to coral reef bombing, damage to mangroves due to illegal logging and damage to coral reefs due to bombing, and forest damage due to logging wild.

Kelomang by Qizink La Aziva. Qizink La Aziva's attitude towards environmental issues through his work, a novel entitled *Kelomang* and published in 2016 shows his caring attitude towards the environment. This is because he raises the environmental theme as a central issue in his story. The environmental issue raised in the novel is an effort to save the environment from the planned sea sand mining project off the north coast of Serang, which is carried out by PT Bintang Laut in collaboration with certain officials (the Regent of Serang and his subordinates).

Broadly speaking, this novel tells about the struggles of environmental activists (Saija figures, Adinda, environmentalists and Serang residents) who are concerned about the existence of sea sand on the north coast of Serang. They fight for the sea sand mining plan not to be given permission by the local government (Regent of Serang and his subordinates) because it will damage the environment. In addition, they are also still struggling to criticize the problem of land-based sand mining which has damaged hills and polluted river water. This is as described in the following quotation.

"Jika penambangan ini sudah berjalan, bisa dibayangkan besarnya kerusakan yang akan ditimbulkan. Kita masih berjuang mengkritisi masalah penambangan pasir darat yang menghabiskan bukit dan mencemari air sungai, sekarang masih ditambah dengan penambangan pasir laut"[12]

Based on this analysis, it can be concluded that Qizink La Aziva through his work (the novel Kelomang) has a high concern for the environment. He not only includes environmental issues in his work (describing the environmental conditions that occur in Serang), but also campaigns on the importance of maintaining and maintaining the balance of the environment in land and sea sand in Serang. This is done by fighting against injustice and against the interests of irresponsible individuals (those who exploit nature for personal / group interests) and taking real action by maintaining cleanliness of the environment and carrying out nature conservation.

Dari Rahim Ombak By Tison Sihabudin Bungin. Tison Sahabuddin Bungin in his work Dari Rahim Ombak, published in 2015, represents environmental issues as a central issue. This is

because the novel takes the theme of the existence of coral reefs in Bungin Island, West Nusa Tenggara. In addition, the message that the author wants to convey in this novel is about the importance of preserving and preserving the existence of coral reefs in Bungin Island which have suffered damage and extinction of coral reefs due to excessive bombing by people with an anthropocentric perspective.

Meanwhile, the contents of the story of this novel describe the environmental damage caused by exploitative coral reef bombing by people with an anthropocentric perspective on Bungin Island, NTB with the aim of getting as much fish as possible quickly or in other words with the aim of making the maximum profit. . In fact, bombing coral reefs has become the livelihood of some Bungin Island people who have an anthropocentric perspective. They are of the view that the available Natural Resources (SDA) must be used to get benefits for their lives regardless of the damage to coral reefs caused by the bombing they have done. This is as the following quote

> *"Anjul memilih jalan hidup untuk menyelamatkan lingkungan. Menyelamatkan karang karena ia merasa nelayan akan sengsara puluhan tahun akan datang jika karang terus dirusak. Sementara di pulau kami pengrusakan karang terjadi tiap hari Bu. Nah, saat menanam karang ia dibom nelayan pengebom. Tidak ada yang sanggup menolongnya karena siapapun menentang pengeboman menjadi warga kelas 4. Akan dikucilkan Bu."*[13]

Based on the analysis and quotations, the author through his work (novel) wants to represent and raise the issue of the importance of protecting and preserving coral reefs and the impacts caused by the bombing of coral reefs. Therefore, it can be concluded that the author's attitude towards the environment through this novel is an attitude of high concern for the environment (the existence of coral reefs) because it makes environmental issues a central issue. In addition, the author indirectly wants to campaign about the importance of protecting and maintaining coral reefs by conserving coral reefs and not bombing. This is because the bombing of coral reefs will lead to the extinction of coral reefs and marine biota species. If this happens, it will not only disrupt the balance of the marine ecosystem, but also harm the lives of the surrounding community.

Pincalang Novel by Idris Pasaribu. Idris Pasaribu through his work, Pincalang, shows his concern for the environment. The author not only shows his concern for the existence of mangrove forests, but also the existence of coral reefs. In addition, environmental issues are a central issue in his work. The author describes the destruction of mangrove forests due to illegal logging and damage to coral reefs from bombing. This is as the following quotes.

> *"Amat sangat marah melihat pohon-pohon bakau ditebang sembarangan. Para penebang itu tidak sedikit pun menghiraukan Amat yang sedang menanami bibit-bibit bakau di sela hutan-hutan bakau yang menggundul".*[14]

It can be concluded that Idris Pasaribu is one of the authors who has a high concern for the existence of mangrove forests and coral reefs. The environmental message in the novel is represented indirectly. Through his work, the author wants to convey a message about the importance of protecting the existence of mangroves and coral reefs.

Qozan By Imogail Zam Zami. Imogail Zam-zami Djalaluddin with his novel Qozan describes environmental issues as a central issue. This is because this novel raises environmental problems that occur in the interior tribes of Central Sulawesi. The problem that is told in this novel is the

destruction of forests due to illegal logging by outsiders of the interior tribes for personal gain. The outsiders are the capital holders and their subordinates. This forest destruction has caused various disasters that befell inland tribes who live and live in the forest to protect the forest. This is as the following quote.

> *" Kebenaran itu adalah mengusir para penebang pohon yang telah menghabisi hutan di wilayah kesukuannya sekaligus mengembalikan wajah hutan seperti dulu lagi, seperti yang pernah diceritakan oleh kakek-nenek mereka".*[15]
>
> *"Karena kerusakan itu pulalah, pagi itu seperti pagi yang kemarin diadakan suatu upacara yang berdiam di rimba raya Sulawesi Tengah. Upacara itu adalah upacara nompakoni yang diadakan oleh suku tempat kelahiran Qozan. Melalui upacara itu, mereka sangat berharap segala bencana yang terjadi di hutan mereka dapat teratasi, terutama para pemegang modal yang banyak itu agar segera keluar dari wilayah kesukuan mereka dan tak lagi menebangi hutan mereka yang hijau itu"* [15]

Based on this analysis, it can be concluded that Imogail Zam-zami Djalaluddin, through his novel Qozan, is one of the authors who has concern for the environment (in this case forests). This is because he raises environmental issues in his work as a central issue. In addition, the message he wanted to convey through his work was filled with positive messages for the sustainability of the environment (forest) in the future.

3.2 Teaching Materials for Literature Learning Oriented Environmental Education

Literary works (short stories and novels) that raise environmental issues can be used as teaching materials in literature learning oriented environmental education. This is because literary works are in the form of text and can be used as tools / media to assist teachers (teachers or lecturers) in the teaching and learning process. This is according to the opinion of Madjid that teaching materials are all forms of materials, information, tools and texts that are used to assist teachers / instructors / lecturers in carrying out teaching and learning. The materials in question can be written or unwritten materials. Teaching materials or curriculum materials are curriculum content or content that must be understood by students in an effort to achieve curriculum goals.[16]

In addition, novels or collections of short stories in the form of books are categorized as print-based teaching materials. The types of teaching materials based on their nature, one of which is print-based teaching materials, including books, pamphlets, student study guides, tutorial materials, student workbooks, maps, charts, photos, materials from magazines. and newspapers, and others.[17]

Teaching materials using literary works (short stories and novels) that raise environmental issues can be used as a means to motivate and stimulate learners' sensitivity and concern for the environment. This is in accordance with one of the functions of teaching materials expressed by Greene and Petty (in Tarigan), which is to present learning methods and means to motivate students.[18]

Environmental education can be integrated in literature learning through Indonesian language subjects at the elementary, junior high school, and senior high school levels. In addition, it can also be integrated into lectures/learning literature at the university level, such as the Appreciation of Prose and Literary Criticism. Literary works (short stories and novels) with environmental themes or raising environmental issues can be used as teaching materials in literature learning oriented environmental education. The environmental themed teaching

materials (literary works) that have been discussed can then be used as alternative teaching materials in literature learning and are classified as follows.

Environmental-themed Teaching Materials at Elementary School Level. The teaching material in the form of environmental-themed literary works that can be applied at the high school level (grade IV, V, and VI) is *Al-Fatihah untuk Pohon-pohon* by Muliadi GF. This is because the contents of the story are simple and easier for children to understand. In addition, according to the child's age, psychological and emotional level.

Another reason related to environmental education-oriented literary learning is because the short stories are full of environmental messages for children. This is because the short story indirectly teaches children to love the environment around them (such as the trees that are told in the short story) from childhood.

Environmental-themed Teaching Materials at Junior High School Level. Teaching materials for literary works (short stories) that can be used as teaching materials in environmental education-oriented literature learning at junior high school are *Al-Fatihah untuk Pohon-pohon* by Muliadi GF, *Jeritan Tengah Malam* by Makhfud Ikhwan, *Ki Pawon* by Hery Nurdiansyah, and *Pudarnya Impian 'Uma* by Khoirriyah Az-zahro.

The reason for choosing these teaching materials is because in addition to being in accordance with the age, psychological and emotional level of students, the environmental issues raised in the short story will motivate students to love the environment, build an ecocentric perspective towards students, be friendly to nature, and have an awareness of environment by not exploiting the environment.

Environmental-themed Teaching Materials at The Senior High School and University Levels. The short story *Jeritan Tengah Malam* by Makhfud Ikhwan, *Ki Pawon* by Hery Nurdiansyah, *Yang Terpenjara Waktu* by Zhizhi Siregar, *Pudarnya Impian 'Uma* by Khoirriyah Az-zahro. In addition, the novel *Kelomang* by Qizink La Aziva, *Dari Rahim Ombak* by Tison Sihabudin Bungin, *Pincalang* by Idris Pasaribu, *Qozan* by Imogail Zam Zami, and *Baiat Cinta di Tanah Baduy* by Uten Sutendy can be used as alternative teaching materials in literary learning oriented environmental education, both at the senior high school and university levels.

The reason for choosing this is because the level of thinking and intellectual of the learners in this category is higher and more complex than the elementary and junior high school levels so that students find it easier to digest the contents of the literary work. Besides, learners in this category have a higher level of criticality so that they can understand the content and message of the literary work properly and optimally. This does not rule out the possibility that learners are not only motivated to love the environment and have an ecocentric perspective on the environment, but are also motivated to be kind and positive towards nature, and not to act arbitrarily towards nature by exploiting nature excessively.

4 Conclusion

Literary works (short stories and novels) with environmental themes that can be used as alternative teaching materials in environmental education-oriented literary learning in this study consist of the short story *Jeritan Tengah Malam* by Makhfud Ikhwan, *Ki Pawon* by Hery Nurdiansyah, *Yang Terpenjara Waktu* by Zhizhi Siregar, *Al-Fatihah untuk Pohon-pohon* by

Muliadi GF, *Pudarnya Impian 'Uma* by Khoirriyah Az-zahro. Apart from short stories, there are also novels, consist of the novel *Kelomang* by Qizink La Aziva, *Dari Rahim Ombak* by Tison Sihabudin Bungin, *Pincalang* by Idris Pasaribu, *Qozan* by Imogail Zam Zami, and *Baiat Cinta di Tanah Baduy* by Uten Sutendy.

These literary works have environmental themes or raise environmental issues such as species extinction due to deforestation for the construction of houses/villas, destruction of hills and karst due to limestone mining, natural damage due to illegal logging, and extinction of trees due to road widening, efforts to save the environment from the plan. sea sand mining project, environmental damage due to coral reef bombing, mangrove forest damage due to illegal logging and coral reef damage due to bombing, and forest damage due to illegal logging.

Teaching materials for environmental-themed literary works can be used as teaching materials in literature learning oriented environmental education. This learning is not only learning literature in Indonesian subjects at the elementary, junior high and high school levels, but also literature learning in the Appreciation of Prose Fiction and Literary Criticism at the university level by paying attention to age, psychological, emotional, and intellectual /intellectual levels. This study still has limitations in exploring environmental education in literature learning. This can be used as a basis for further research or future research.

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