Analysis Of Teacher Competence And Performance In The Ability To Develop Learning Evaluation Instruments

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Abstract – A teacher in performing his roles and duties is expected to have good pedagogic and professional competencies in the learning process. The teacher certification program is conducted with the objective of creating professional teachers so that teacher performance may increase. The ability to develop learning evaluation instruments is one of the competencies required to be possessed by a teacher. This study is to assess how the ability of teachers in compiling learning evaluation instruments and their relation to the competence and performance of the teachers. The method used was a survey using a questionnaire on high school geography teachers who were certified educators in Bandar Lampung City. Variables assessed included pedagogical and professional competence, teacher's ability to plan, implement, and evaluate learning, and teacher's ability to develop test instruments. Teacher competence and teacher performance are related to the teacher's ability to develop test instruments. Teacher competence, both pedagogic competence and professional competence, characterizes the professional quality of a teacher. Good competence will affect teacher performance as well. The teacher's performance in planning and implementing learning is a reflection of the value of his competence. The teacher's ability to develop test instruments is one part of the teacher's performance assessment.

Keywords – Learning evaluation instruments, teacher performance, pedagogic competence.

I. INTRODUCTION

Education plays an important role in building competitive human resources ([1]. Teachers are the key to the development of a nation [2, 3]. The strategic position of the teacher is influenced by the performance of the teacher and the professional ability that makes the teacher a professional teacher. A professional teacher is a teacher who has the ability to conduct his main duties as an educator and teacher who has the ability to plan, execute, and evaluate learning outcomes [4]. The teacher's role in learning is as a planner, manager, and as an evaluator [5]. Based on the reality of the importance of the role and duties of teachers in education, a teacher is expected to have good competence, especially in the learning process. The key to effective education that affects student learning outcomes comes from competent teachers [6]. In Indonesia, a teacher certification program has been applied starting from the assessment process through a portfolio of teacher performance in positions which began in 2006 and was later replaced with an assessment model through Teacher Education and Training and currently getting a certificate as a certified teacher has been changed with the Teacher Professional Education Program. The purpose of this assessment is to obtain competent teachers.

Teacher performance is the result achieved by teachers in performing quality teaching tasks [7]. In this study, the teacher's performance in question is the teacher's ability in the preparation of learning evaluation instruments. The facts show that teacher performance is still not optimal [8]. Based on the results of surveys and interviews with principals at three public high schools in Bandar Lampung City, data on the performance of certified teachers showed that the results were not optimal. It can be identified from the average GPA score, which was the highest score obtained by the geography teacher is 70 and the lowest score is 58 with the highest possible score that can be obtained, which is 78. If converted to a GPA value = 100. It means that the teacher's performance has not yet reached the maximum value.

From the scores above, there are several notes for teachers, which are learning devices that have not fully followed *Kurikulum 2013* (the curriculum 2013), especially derivatives of learning indicators that are not in accordance with core competencies and basic competencies. Teachers in learning have not taken a scientific approach so that students are less innovative, creative and independent. Less varied learning models and methods, the use of learning media has not been maximized, especially animation or audio visual media and the ability to develop learning evaluation instruments based on Bloom's Taxonomy theory which is also not maximized. It is what lies behind the need for research on high school Geography teachers in Bandar Lampung City who have passed certification.

II. RESEARCH METHOD

The method used in this research was a survey. Information was collected from respondents using a questionnaire. In general, survey research is a scientific research which data was collected from a selected sample of the population of certified geography teachers in Bandar Lampung City.

The population in this study were all geography teachers who were certified educators at SMA in Bandar Lampung City. The distribution of the number of teachers and high schools in Bandar Lampung City can be seen in the following table.

Table 1. Distribution of High Schools and Teachers in Bandar Lampung City

Population Area	Number		SMA Teacher	Geography Teacher
	SMA (Senior High School)			
	State	Private		
Bandar Lampung City	19	68	1168	74
Total	87			

Determination of the sample was obtained by purposive random sampling as much as 35% of the number of geography teachers in Bandar Lampung, who were 25 high school teachers with Geography teacher status. The variables in this study are 1) Teacher-certified geography teacher competency assessment includes: pedagogic competence and professional competence, 2) Teacher-certified geography teacher performance assessment includes: ability to plan lessons, ability to implement learning, and ability to evaluate learning, as well as geography teacher's ability to develop instruments test, covering knowledge, understanding/perception, application, elaboration, integration, and assessment.

Research data were collected through questionnaires and documentation. The Likert scale questionnaire was used to obtain 1) the implementation of a certified geography teacher competency assessment, 2) a certified teacher performance assessment, and 3) an assessment of the certified teacher's ability to develop learning evaluation instruments. Documentation instruments in the form of lesson plans and learning evaluation instruments used by teachers to support data triangulation along with the Teacher Competency Assessment Tool (APKG) instrument.

The data analysis technique used in this study was quantitative using descriptive statistical analysis and multiple correlational test statistics. Descriptive statistical analysis was employed to see the implementation of teacher competency and performance assessment using cross tabulation, while to see whether there was a relationship between teacher competence and performance on the teacher's ability to develop learning evaluation instruments using multiple correlation statistics. Teacher competence (X1), teacher performance (X2), and teacher ability to develop learning evaluation instruments (Y).

III. RESULT AND DISCUSSION

Result

Teacher's Pedagogic Competence

To identify how teachers manage student learning, a survey was conducted to see aspects of the implementation of the teaching profession. Good teachers in managing learning are expected to understand in advance about the curriculum 2013 which

is the source of a set of plans and arrangements regarding the objectives, content, and learning materials as well as the methods used as guidelines for organizing learning activities to achieve certain educational goals [9].

Learning objectives cannot be thought of independently [10] because to obtain the best learning objectives usually need to be discussed to be able to unite the opinions of other teachers. Although there are still teachers who prefer to formulate learning objectives independently or workshops conducted by schools, the number is small.

Table 2. Teacher's Pedagogic Competence

	Independent	MGMP	RPP is the same as last year	School workshop
Develop learning objectives according to the curriculum	7	15	-	3
Prepare lesson plans for 1 semester	8	15	-	2

	Curriculum	Learning objectives	Characteristics of students	Teacher's ability
Determination of learning resources and learning media	3	16	6	-
Learning model	4	6	15	-

In addition to setting learning objectives, the MGMP forum is frequently used by teachers in preparing lesson plans for one semester of the curriculum 2013. The Subject Teacher Consultation (MGMP) has a very central and strategic role in improving teacher competence [11, 12. 13] forum which is calculated, supported and empowered in order to improve the quality of education towards national education standards. MGMP is collegial supervision [14] so that fellow teachers can interact with each other, between more experienced teachers and inexperienced teachers. Activities in MGPM share concrete experiences. Empirical experience shows that MGMP has presented a significant role in improving teacher competence. In determining learning resources, teachers perceive learning objectives as an aspect in determining learning resources and appropriate learning media. Meanwhile, the characteristics of students are a teacher's consideration in using the learning model in the classroom.

Teacher's Professional Competence

Ideally for a profession, the level of education of a professional should be in line with the profession being performed. The higher the education that can be achieved, can make a person more professional when viewed from the knowledge of education. Professional teachers are expected to be able to develop themselves through training, research, article writing, development of teaching materials, and publications. Challenges in the 21st century require teachers to be able to update competency profiles [15]. Teachers are expected to have the ability to learn and improve the ability to support the professionalism of a teacher, one of which is by increasing the ability to utilize technology for learning activities [16,17].
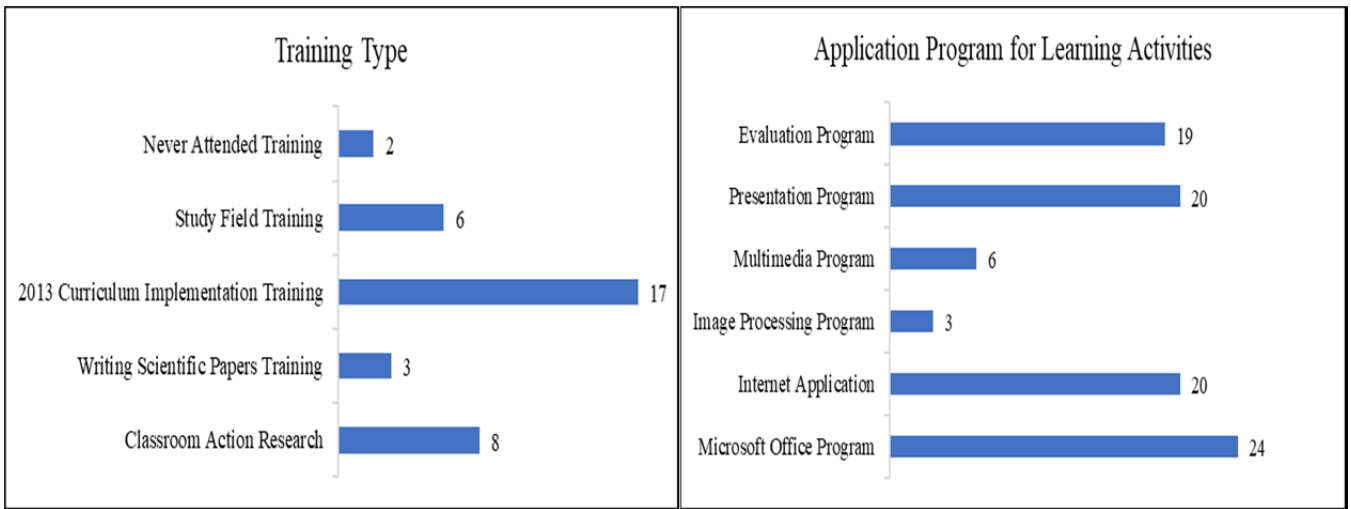
Teacher Performance

In assessing teacher performance, the tool used is APKG. The variables of teacher performance assessment include the ability to plan lessons, the ability to perform learning, and the ability to evaluate learning.
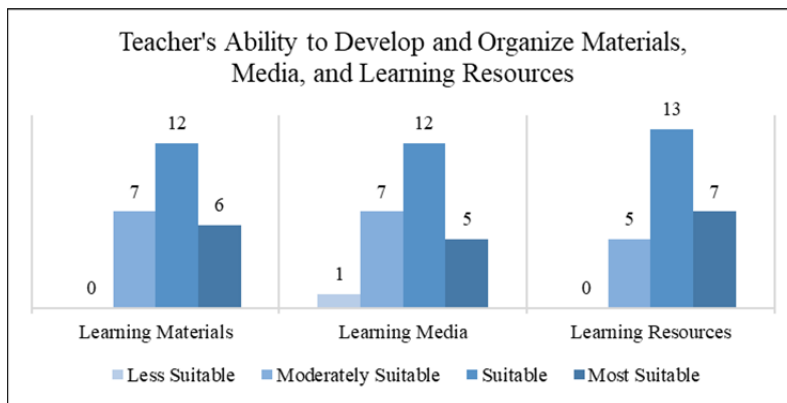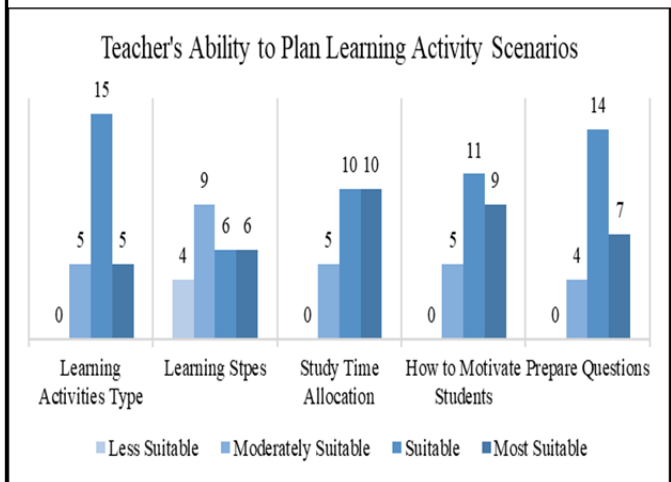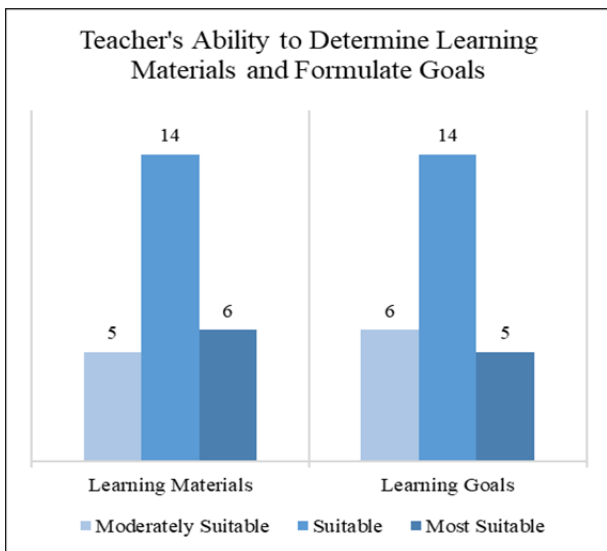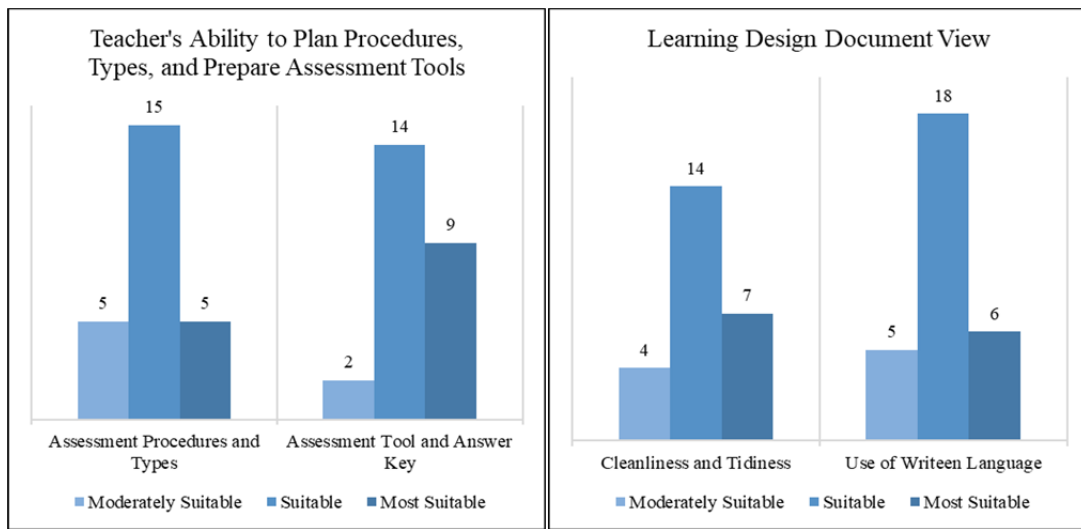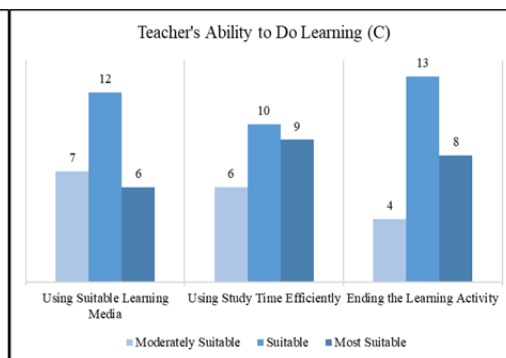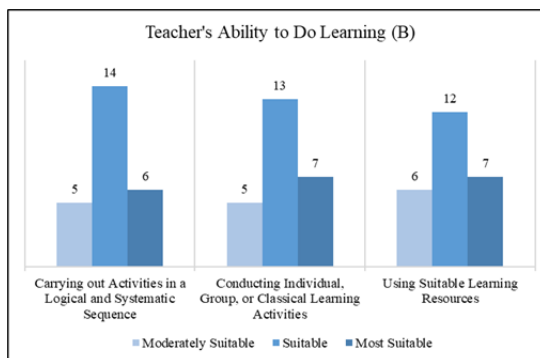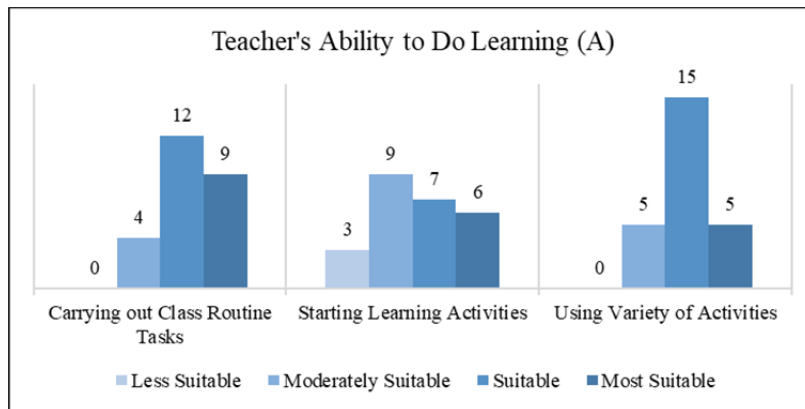
Figure 1. Teacher's Ability in Planning Lessons

To see the teacher's performance, in addition to observing the teacher's ability to design the implementation of learning, it is also necessary to identify the teacher's ability to conduct learning.
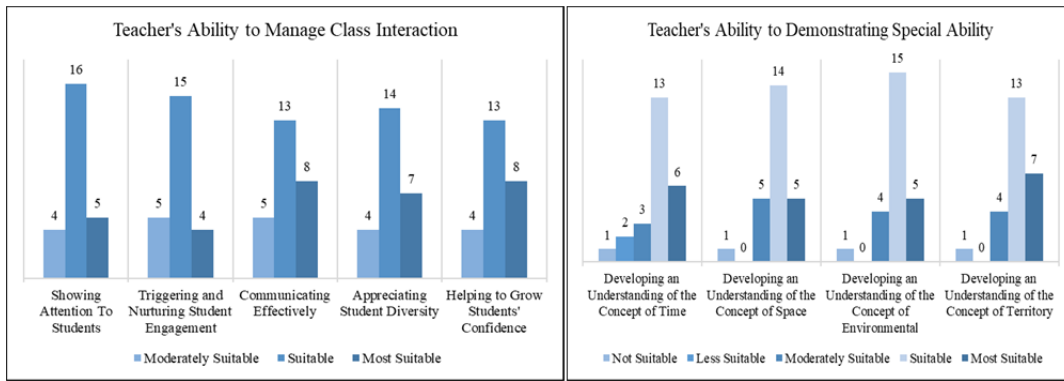
Figure 2. Teacher's Ability to Implement Learning

Assessment of learning processes and outcomes is divided into 3 aspects, which are performing assessments at the beginning of learning, assessments during the learning process, and assessments at the end of learning [18]. The assessment at the beginning of learning, although for some teachers, it is not completely perfectly, but thoroughly, it has been conducted well, likewise, with the implementation of the assessment during the learning process and at the end of the learning process.
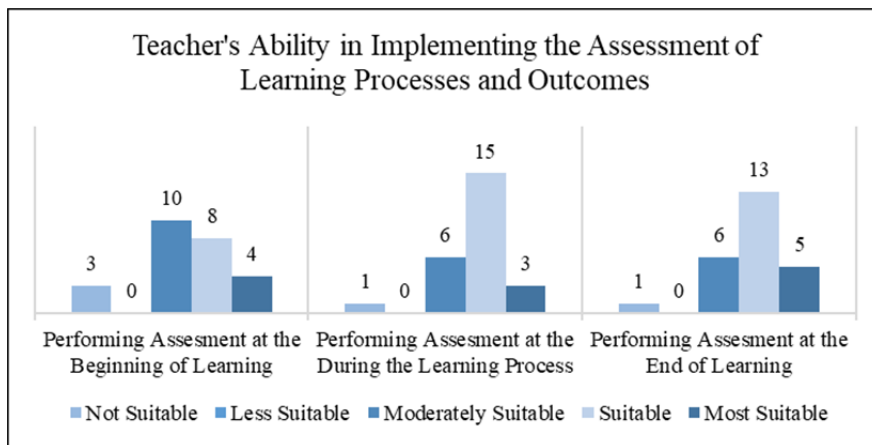

Figure 3. Teacher's Ability to Perform Evaluation

Teacher's Ability to Develop Learning Evaluation Instruments

The success of teaching is not only seen from the learning outcomes achieved by students, but also in terms of the process. Learning outcomes are basically the result of a learning process. It means that optimal student learning outcomes also depend on the student learning process and the teacher's teaching process. Therefore, it is necessary to evaluate the teaching-learning process.

Process assessment focuses on the assessment target on the level of effectiveness of teaching and learning activities in order to achieve teaching objectives. The assessment of the teaching and learning process involves the assessment of teacher activities, student activities, teacher-student interaction patterns and the implementation of the teaching and learning process. The administering of test instruments should consider several stages of analysis, which are the analysis of the level of difficulty, the level of distractors, the power of discrimination, the validity of the questions, and the reliability of the questions.

Table 3. The use of item analysis in arranging learning evaluation instruments

Item Analysis	Different power		Question validity		Difficulty Level		Distractor Level		Question reliability	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
	17	8	18	7	19	6	18	7	16	9

Discussion

To identify the relationship between teacher competence (X1), teacher performance (X2) and the ability of teachers to prepare test instruments (Y2), a calculation is performed using the multiple correlation formula, which are the relationship between variables X1 and X2, the relationship between variables X1 and Y, as well as the relationship between variables X2 and Y. Calculations employing the assistance of statistical calculations from Microsoft excel with the Pearson Product Moment formula, obtained the value of each relationship between variables as follows.

Table 4. Calculations between Research Variables

	x_1 and x_2	x_1 and y	x_2 and y	x_1x_2y	r_{table} sig= 0,o5	t_{table} df=23
Value r	0.736978	0.676753	0.627376	0.794981	0.3233	-
Value t	5.22895526	4.40847882	3.86371963	6.28481067	-	1.71387

From the results of these calculations, the value of r_{X1X2Y} is 0.794981 in which r count > r table, which means that there is a correlation between the variables connected. Teacher competence and teacher performance are related to the teacher's ability to develop test instruments. Teacher competence, both pedagogic competence and professional competence, characterizes the professional quality of a teacher. Good competence affects teacher performance as well. The teacher's performance in planning and implementing learning is a reflection of the competence value. The teacher's ability to develop test instruments is one part of the teacher's performance assessment.

IV. CONCLUSION

From the results of the discussion of teacher competence and performance in the ability to compose test instruments, it can be concluded that:

1. Teacher competence seen from the aspect of pedagogic competence, and professional competence is considered quite well. In pedagogic competence, almost 80% of teachers have mastered the ability to manage student learning. MGMP has the most important role in the formation of teacher pedagogic competence. Professional competence in the form of teacher self-development is quite good.

2. Teacher performance seen from the APKG 1 and APKG 2 assessments, almost 50% have mastered the planning and implementation of learning both from the planning process, learning activities, evaluation, and closing learning activities.

3. The ability of teachers in preparing test instruments is 80%

4. There is a strong relationship between teacher competence, teacher performance, and the ability to develop test/learning instruments

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