Developing Smart Apps Creator (SAC) Learning Media on Human Life Materials in the Pre-Literacy Period

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A R T I C L E I N F O	A B S T R A C T
  	This type of research is R&D (Research and Development) research and development which is used to produce certain products and test the feasibility of the product before being disseminated. This research aims to develop Smart Apps Creator (SAC) learning media which contains material on the Life of Indonesian Society during the Pre-Literacy period. In this research, researchers will use the ADDIE R&D (Research and Development) development model from Robert Maribe Branch with five development stages, namely: Analyze, Design, Develop, Implement and Evaluate. Based on the results of product validation test results calculated by Media & Design Experts, a score of 84% was obtained, which means that the SAC Learning Media product has the criteria of Very Good and Suitable for Use. Meanwhile, based on the calculation results of the product validation test results by the Materials Expert, a value of 86.36% was obtained, which means that the SAC Learning Media product has the criteria of Very Good and Suitable for Use. So the conclusion of this research is that the Smart Apps Creator (SAC) Learning Media Product is suitable for use.

INTRODUCTION

A nation needs to prepare itself to face the era of society 5.0, one of which is through the world of education. In education, it cannot be separated from the learning activities carried out by an educator in helping students to find solutions to existing problems and make innovations from the source of these problems (Jayawardana & Gita, 2020). There are many ways that can be done to prepare students who are creative, innovative and have integrity, one of which is by providing fun learning through the use of technological developments (Pinatih, 2020; Saragih, 2022).

The world of education in the era of society 5.0 is expected to be able to present more meaningful learning activities by creating fun learning, including by using cellphones in learning activities. National education functions to develop abilities and shape the character and civilization of a dignified nation in order to make the nation's life more intelligent, aimed at developing the potential of students to become human beings who have faith and are devoted to God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent. , and become democratic and responsible citizens (Hermanto, 2020; Yanti, 2021). To realize national education goals, a qualification profile of graduate abilities is required which is outlined in graduate competency standards (SKL) (Wijayanti, 2017; Romadon & Mahmudi, 2019; Iqbal, et al., 2020). Graduate Competency Standards are minimum criteria regarding the unity of attitudes, skills and knowledge that show the students' ability achievements from their learning outcomes at the end of the Education Level (Nugraheny, et al., 2023).

To help realize graduate competency standards that are in line with students' abilities, educators need to help students to be able to participate in learning activities optimally. These include educators analyzing students' learning styles before carrying out learning activities (Nurdyansyah & Fahyuni, 2016; Susilowati, 2022).

And along with technological developments, learning media that continue to develop are e-learning, learning applications, and simulations. E-learning refers to learning carried out via the internet network, while learning applications are applications used to help students understand and learn learning material (Damai, 2021). The learning style questionnaire distributed to grade 7 students was filled in by 69 students or 54% of the total number of grade 7 students showing that 36.2% or 25 people had a Visual learning style, 29% or 20 people had an Auditory learning style, and 34.8% or 24 people have a Kinesthetic learning style.

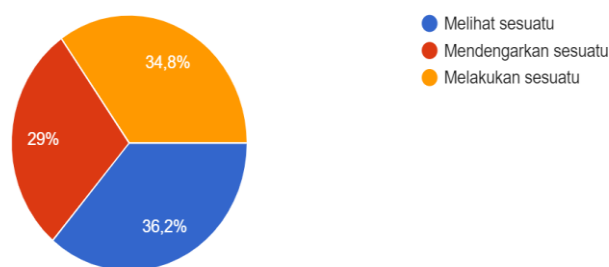Saya mudah mengingat dan memahami sesuatu, dengan cara:

69 jawaban

Figure 1. Learning Styles of Grade 7 Students at SMPN 4 Bukit Kemuning

To facilitate learning needs according to students' learning styles and meet the needs for learning media that can be used in teaching and learning activities in Social Sciences (IPS) subjects in class 7, the author took the research title "Developing Smart Apps Creators Learning Media on Community Life Materials Indonesia in the Pre-Literate Period".

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LITERATURE REVIEW

Learning media is a teaching aid in the form of a vehicle that contains learning material and distributes it in a more effective and efficient way, so that it can stimulate students to absorb it better (Thobroni, 2020; Kusuma & Suryaman, 2022).

Learning media are all forms of materials used to help students achieve learning goals (Eliyanti, M., 2016). Learning media is a learning aid that can attract students' attention during the learning process, there by reducing students' boredom and boredom during the teaching and learning process (Fitri & Ardipal, 2021).

Along with technological developments, learning media that continue to develop are e-learning, learning applications, and simulations. E-learning refers to learning carried out via the internet network, while learning applications are applications used to help students understand and learn learning material (Damai, 2021).

Smart Apps Creator (SAC) is an application development platform that allows users to create applications without needing to understand programming languages (Azizah, 2020). In developing learning media, SAC can be used to create interesting and interactive learning applications easily and quickly (Ardiansyah & Wicaksono, 2022). SAC allows users to add various kinds of content such as images, text, video or sound (Amalia, 2022).

Several previous studies wrote that the use of SAC in learning can improve the quality of learning by providing a more interactive and interesting learning experience for students. In the context of social studies learning, SAC can be used to create applications that contain various kinds of information and

content such as maps, graphs, tables, photos, videos, and so on. This application can help students understand the material better and have fun (Sa'adah, 2023).
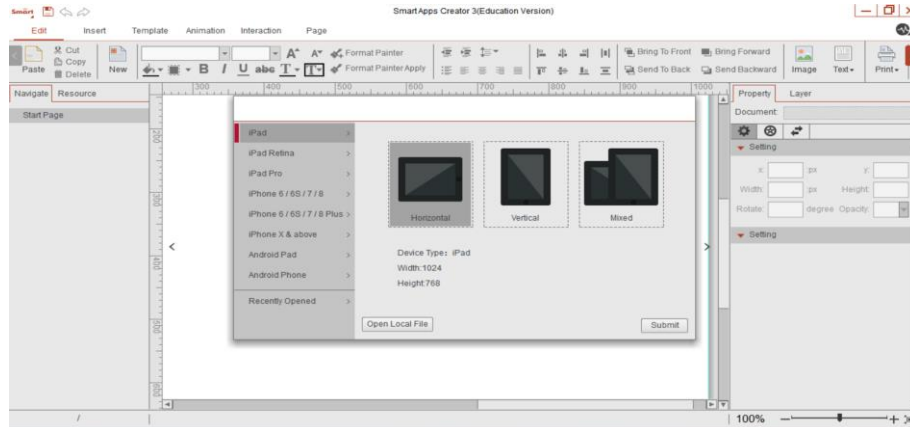

Figure 2. Initial Appearance of Smart Apps Creator (SAC)

METHODOLOGY

This type of research is R&D (Research and Development) research and development. Research and development (R&D) is a research model used to produce certain products and test the feasibility of these products before being disseminated. This research aims to develop Smart Apps Creator (SAC) learning media which contains material on the Life of Indonesian Society during the Pre-Literacy period. In this research, researchers will use the ADDIE R&D (Research and Development) development model from Robert Maribe Branch with five development stages namely: Analyze, Design, Develop, Implement and Evaluate.
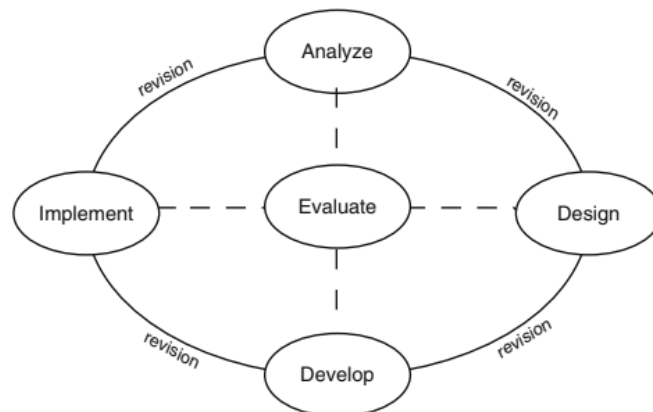

Figure 3. ADDIE Concept

Development Research Procedures

This learning media development research follows five stages of the ADDIE model development procedure, namely:

1. **Analysis Stage (Analyze)**

At this initial stage, the author identified possible causes for social studies grades that did not meet expectations, so that learning media was

needed that was interesting and suited to students' needs. Problems can occur because the learning media currently used is less interesting and less relevant to the needs and characteristics of students. The activities carried out at the analysis stage are finding out the characteristics of students, namely through a learning style questionnaire.

2. Design Stage (Design)

The design stage is carried out by designing learning media using Smart Apps Creator (SAC). At this stage, class 7 social studies learning materials were collected regarding the lives of Indonesian people during the pre-literacy period, asset collection and product design; and preparing a Smart Apps Creator (SAC) design plan.
The stages carried out in the design process are as follows:
   a. Formulate Learning Objectives
   b. Develop objective tests based on learning objectives
   c. Select and determine learning resources that are relevant to the material
   d. Create learning media designs that suit learning objectives.

3. Development Stage (Develop)

The development stage is an activity to realize the design or product design into a development product that is ready to be tested in learning activities. The product developed is SAC Learning Media with the following content plan:
   a. Opening or opening page: The opening section contains a video opening the learning media product which contains the title and name of the developer.
   b. Title: This section contains the title page of the subject matter in the learning media product.
   c. Learning objectives: Learning objectives contain the objectives in the learning plan that has been prepared.
   d. Quiz: Contains practice questions to measure students' level of understanding in studying material on the life of Indonesian society during the Pre-Literacy period.
   e. Assignment (Group Discussion): This section contains tasks for conducting group discussions according to the instructions given.
   f. Bibliography/Bibliography: The last component contains a list of references used in creating Smart Apps Creator (SAC) learning media.
   g. Developer Profile: Contains a brief biography of the developer

At this stage, product development validation will also be carried out by two experts. The media & design expert test aims to determine the suitability of the design, images, colours and the suitability of the overall appearance of learning media, while the material expert test is used to test the suitability in

terms of the material presented, namely material on the Life of Indonesian Society during the Praaksara Period.

The score resulting from validation by experts will be calculated using the formula:

value = $\dfrac{R}{SM}$ x 100

Information :

N = Searched or Expected Value

R = Raw Score Obtained

SM = Maximum Score

100 = Fixed Number

(Source: Purwanto, 2009)

The scores obtained will be included in the assessment criteria based on table 1.

Table 1. Expert and User Validation Assessment Criteria

Value	Criteria
81% - 100%	Very Good
61% - 80%	Good
41% - 60%	Pretty Good
21 – 40%	Not Good
0% - 20%	Not Very Good

Source : Sofnidar & Yuliana, 2018

Only if the Expert Validation Test result score is above 61% or within the Good and Very Good criteria shows that the Smart Apps Creator (SAC) learning media product is suitable for use.

4. Implementation Stage (Implementation)

The implementation stage is a concrete step to implement the use of the product that has been developed. This stage will be implemented in the school that is the research site with the users, namely students in grade 7 and two educators.

5. Evaluation Stage (Evaluate)

The evaluation stage aims to assess the quality of the product that has been developed, namely SAC learning media in the material of Indonesian Community Life during the Praaksara period in the learning process.

In this research, the author only developed SAC learning media on Indonesian Community Life Material in the Pre-Literacy Period which was

validated by Media & Design Experts and Material Experts to determine whether or not the product developed was suitable for use in learning activities.

RESULTS AND DISCUSSION

   The results of the validation test by media & design experts are presented in table 2.

Table 2. Results of Validation Tests by Media & Design Experts

Aspects That Rated	Assessment Indicators	Assessment Items	Acquisition value
1. Learning Media Design	a. Principles Design	1) Products have *teaser (opening)*	4
		2) Availibility of Instrukctions	4
		3) Readability of writing *(caption)* font size, typeface, and color of letters.	5
	b. Message Design	4) Message delivery is achieved	4
		5) The depth of the material content according to the educational level of leaners	4
		6) Systematics of the order of precentation easy understanding of the material.	4
2. 2. Quality of Learning Media	a. Quality Learning	7) Provide learning opportunities	5
		8) Help with learning	5
		9) Motivate users to learn	4
		10) Fleksibility of use	4
		11) Can make a positive impact for users	3
.	b. Technical Quality	12) Readability	5
		13) Easy to use (*User Friendly*)	5
		14) Media display quality learning	4
		15) Practically use of learning media	4
		16) Material Menu availability	4

Aspects That Rated	Assessment Indicators	Assessment Items	Acquisition value
		17) Easy of menus and instructions	4
		18) Availability of *Next* and *Back buttom*	4
		19) Uniformity buttom	5
		20) Interesting use of images/animation/video	3
Expected Value			84
Maximum Value			100
Value			84%

Source: Adapted from Kustandi & Darmawan, 2020

Based on the results of product validation test results calculated by Media & Design Experts, a score of 84% was obtained, which means that the SAC Learning Media product has the criteria of Very Good and Suitable for Use.

Meanwhile, the results of the validation test by the author's Media Expert are presented in table 3.

Table 3. Validation Test Results by Material Experts

Aspects That Rated	Indicators Assessment	Rating item	Nilai perolehan
1. Language and Communication	a. Suitability writing, spelling and language according to the rules PUEBI	1) The level of readability	5
		2) Choice of font, color, and size make it easy for use	4
		3) Use clear sentence structure	4
		4) Language according to the characteristics learners	4
		5) Use clear sentence structure	4

2. Main Material	a. Accuracy Material	6) Learning objectives in accordance with mapel IPS learning access Independent CurriculumD Phase Grade 7.	5
		7) Learning objectives in accordance with the objectives learning that will be achieved	5
		8) The material is clearly presented	4
		9) The material presented is complete in accordance with the purpose of learning.	4
		10) Systematic presentation of prepared material neatly and systematically.	4
		11) The concepts and materials presented are not causing user misinterpretation	5
		12) The material presented can be improving the quality of learning	4
	b. Material Updates	13) Material presented in the media actual learning and in accordance with science development	5
		14) Learning resources referenced in social media is a source of learning advanced learning.	5
		15) Material adequacy (sufficiency)	4
		16) Material presented in accordance with the level of education of participants	4

3. Material Supporters	a. Suitability Material supporters	17) Combination of learning materials with pictures/simulation/video	4
		18) Image/simulation/video presentation can clarify the learning material.)	5
		19) Explanation of the material in picture/video can be describe a phenomenon or fact the one time.	4
4. Question	a. Appropriateness of the Question	20) Questions according to the learning material	4
		21) About using the stimulus contextual (Images/graphic, text)	4
		22) The questions are in accordance with the learning objectives	4
Expected value			95
Maximum Value			110
Value			86,36%

Source: Adapted from Kustandi & Darmawan, 2020

Based on the calculation results of the product validation test results by the Materials Expert, a value of 86.36% was obtained, which means that the SAC Learning Media product has the criteria of Very Good and Suitable for Use.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the validation test of SAC Learning Media products on Indonesian Community Life Material in the Pre-Literacy Period, SAC Learning Media is suitable for use in learning activities for Social Science subjects in class 7.

Before using learning media, it is best to analyze the characteristics of students so that the learning media that will be created or used in learning is appropriate to the students' conditions.

FURTHER STUDY

The author will use this research for further research, namely utilizing SAC learning media to improve learning outcomes.

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