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Development of Android-Based Learning Media in Film Production Management Subjects at SMK Negeri 4 Padang

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ABSTRACT: The learning process for film production management at SMK Negeri 4 Padang is not optimal, this is due to several problems, namely the availability of learning media only in the form of printed books that students borrow from the school library. This causes students to lack understanding of the learning material and are less motivated to study and causes students' grades to be low according to the data obtained that the students' KKM score is only 42.85%. The aim of this research is to develop valid and practical film production management learning media.

The research method used in this research is development research (R&D) with the ADDIE model which consists of 5 stages, namely analysis, development, design, implementation and evaluation at each stage. This research involved 35 class XI Broadcasting students who took part in film production management lessons.

The results of this research are in the form of Android-based learning software which can be used as a complement to the learning process, especially in film production management subjects. This product has been tested for its validity level by several material experts and learning media experts and an average validity value of 86.07% was obtained. And the practicality test results from users, namely teachers and students, obtained an average practicality value of 85.02%.

KEYWORDS: Development, Android, Validity, Practicality

INTRODUCTION

Law no. 20 of 2003 concerning the Education System, that education is a conscious and planned effort which aims to create a learning atmosphere and learning process so that students can be actively involved in developing their potential and have spiritual strength, religious self-control, personality, moral intelligence, nobleness, and skills of society, nation and state. In order for the functions and goals of education to be achieved, it is necessary to have learning activities arranged in a learning program. Education is the main aspect for creating quality human resources, with education being able to create humans into individuals who are useful for the life of a nation to achieve state goals.

The development of information and communication technology such as Android has not been utilized to support the learning process. Most teachers and students only use Android to open social networks or games. Technological advances such as Android should be utilized in the learning process. In the learning process, an educator is needed who is able to integrate information and communication technology as time goes by. As an educator, you are required to be able to creatively design teaching materials that enable students to directly utilize available learning resources (Kuswanto, 2019)

Learning media is one of the methods or tools used in the teaching and learning process. Learning media is something that involves software and hardware that can be used to convey the content of teaching materials from learning sources to students (individuals or groups) which can stimulate students' thoughts, feelings, attention and interests in such a way that the learning process inside/outside the classroom become more effective (Cholifah, 2019). Learning media is something that is really needed in learning, so that the teaching and learning process is more effective and easier for students to understand. By utilizing learning media you can arouse interest in learning. The use of Android-based learning media has a very significant impact on students' interest in learning the competencies being taught (Basrul et al., 2021).

According to According to (Firmadani, 2020) identified several benefits of media in learning, namely: 1) delivery of learning material can be uniform, 2) the learning process becomes clearer and more interesting, 3) the learning process becomes more interactive, 4 efficiency in time and energy, 5) improves quality student learning outcomes, 6) media allows the learning process to be carried out anywhere and at any time, 7) media can foster students' positive attitudes towards the material and learning

process, and 7) change the role of teachers in a more positive and productive direction. The use of learning media can be applied at any level of education, be it formal or non-formal education as long as the aim is to simplify or help the teaching and learning process. One level of education that requires learning media in the teaching and learning process is Vocational High School (SMK). SMK Negeri 4 Padang has several skill competitions, one of which is Broadcasting. Broadcasting majors, especially film production management subjects, have not utilized Android devices.

Several related studies have been carried out previously, such as research (Salsabila, 2023) with the development of printed modules based on cooperative learning in production management subjects, the research method used was development with a 4D model, the number of respondents was 30 students and 6 teachers. The research results showed that the media feasibility test was 93.33% and the material was 94.64. Based on research (Hapsari, 2021) with the title "Development of Android-Based Interactive Learning Media on Matrix Operations material" produces a learning media in the form of an Android application which contains operations on matrices. The feasibility test from material experts was 93.18%, media experts were 88.59%, and the assessment from students was 83.18%, so an average of 88.32% was obtained. (Irawan, 2021) in his research with the title "Development of an Android-Based E-Module for Production Management Subjects for Class Apart from that, production management is also the first step before production takes place. Production management lessons require students to know how to prepare a script and select a film crew.

Research conducted by Nurul Shadrina et al (2023) with research entitled "Rivet short film production management: from pre-production, production and post-production". The aim of this research is to find out how the production management of a short film Keling is from pre-production, production to post-production. This research uses case study research, an approach used to examine problems using qualitative descriptive methods. And the results of this research illustrate the importance of film management starting from pre-production and post-production of the film Keling and the message conveyed can be conveyed well.

Based on previous research and referring to the results of observations and interviews conducted on March 18 2024 with resource teachers in film production subjects and students in class XI Broadcasting at SMK Negeri 4 Padang, information was obtained that there were several obstacles that occurred in the learning process, namely 1) limited learning media facilities, 2) students' difficulties in understanding learning material and 3) low student learning outcomes. From these three problems, it can be explained that there are limited learning media facilities, where the media used is still conventional, namely using printed books borrowed from the school library for a certain period of 1 week. The use of printed books is also difficult for students to understand both in terms of the use of language and the existing material. The limited availability of printed books for class XI film production can also affect students' interest in learning. Inappropriate learning media can also affect student learning outcomes. This can be seen from the students' final semester exam scores that have not reached the Minimum Completeness Criteria (KKM) score, namely 75. Of the 35 students, only 15 completed and 20 did not. Or the percentage of those who completed was 42.85% and those who were incomplete was 57.25%.

RESEARCH METHODS

This research was carried out on 35 students in class XI Broadcasting at SMK Negeri 4 Padang in the film production lesson for the 2023/2024 academic year. The research location is on the Padang-Indarung highway, Cengkeh sub-district, Lubuk Begalung sub-district, Padang City, West Sumatra Province. An “informant”, namely a person who is part of the research background and is used to provide information about the circumstances and situations that are part of the research background, is the focus of the investigation.

The type of research used in this research is development research, abbreviated as R&D, with the ADDIE development model. R&D aims to create new products or improve existing products. R&D is a research approach or process that is powerful enough to improve teaching and learning practices. More specifically, development research needs to be carried out to find solutions to learning challenges related to certain problems (Tegeh, 2013) . The ADDIE model, which is a systematic learning design model, is a development paradigm used in the process of developing this learning content.

The decision to use this model was taken after considering that this model follows a systematic development process and is based on the theoretical foundations of learning design. This model is structured programmatically, with a systematic series of activities, to solve learning problems related to learning resources that suit the needs and characteristics of students.

This model is structured programmatically with a systematic series of activities. This model consists of five steps, namely: (1) analysis, (2) design, (3) development, (4) implementation, and (5) evaluation. The ADDIE model can be shown in Figure 1 below:

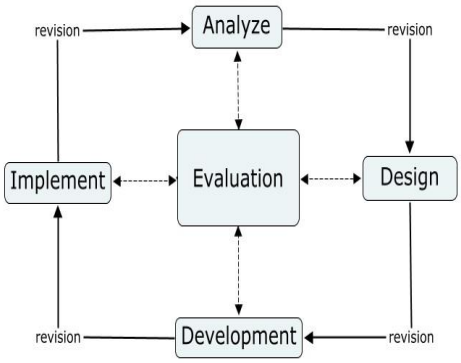

Figure 1. ADDIE development model

Based on Figure 1, each stage can be described as follows:

1. Analysis, at the analysis stage carried out is analyzing the needs for the learning media that will be designed. The activities carried out at this stage are as follows:

a. Preliminary Analysis

The research started from observations at the SMK Negeri 4 Padang School, based on observations the researchers found a problem, namely that the learning media used had not been varied and one of them was in the form of printed books.

b. Needs Analysis

Based on the results of teacher and student interviews, information was obtained that all students had Android-based smartphones but there was no Android-based learning media. Therefore, learning media is needed to attract students' interest in learning in order to increase understanding of learning material.

c. Analysis of Student Characteristics

This analysis was carried out to determine the characteristics of students in taking film production lessons

d. Curriculum Analysis

Curriculum analysis was carried out by analyzing learning outcomes in the class XI Broadcasting film production subject. This is done to determine the learning objectives that will be developed.

2. Design, at this stage verification of the desired results or achievements (learning objectives) is carried out, and the approach or strategy used is determined.

3. Development, at this stage what is carried out is: developing, creating and verifying learning resources, as well as developing the necessary materials and support.

4. Implementation, at this stage prepare the learning environment and carry out learning by involving students.

5. Evaluation, at this stage evaluate the overall quality of the product and teaching process. (Hidayat, 2021)

The instrument used in this research is a questionnaire. There are two types of questionnaires, namely a questionnaire on the validity of learning materials and media and a questionnaire on the practicality of learning media. Before the questionnaire is distributed to respondents, a questionnaire validation process is first carried out so that the questionnaire that will be used to collect data is truly valid. The material validity questionnaire consists of 2 aspects, namely 1) achievement of learning objectives which contains 7 questions and 2) suitability of the curriculum containing 5 question items. And the learning media validity questionnaire consists of 3 aspects, namely 1) ease of use which contains 5 questions, 2) attractiveness which contains 5 questions and 3) language and readability which contains 4 questions. This practicality questionnaire consists of 2 types, namely teacher practicality consisting of 10 questions and student practicality consisting of 15 questions. All questionnaires are arranged based on a Likert scale, namely 1 to 4 with categories 1 = Disagree, 2 = Somewhat Agree, 3 = Agree and 4 = Strongly Agree.

FINDING AND DISCUSSION

This development research produces Android-based learning media products on the concept of encapsulation and inheritance in object-oriented programming subjects. This research uses a Research and Development (R&D) approach using the ADDIE development model. This model consists of 5 steps, namely: (1) Analysis, (2) Design, (3) Development, (4) Implementation, and (5) Evaluation. At this analysis stage, an analysis of material needs and problems, learning media, student learning conditions, and

basic competencies used when designing Android-based learning media is carried out. Specifically, this discussion will concentrate on the teaching methods used in class XI Broadcasting.

Based on the problems faced by class which can make it easier for students in the learning process. At the design stage, learning media are designed according to basic competencies in the appropriate order of learning indicators through storyboards. After the storyboard is complete, it continues with the learning media development stage. Figures 1 to 7 show the development sequence.

Figure 1. The First Display

Figure 2. Learning media content categories

Figure 3. Using Button Guided

Based on Figure 1, it can be explained that it contains the initial view of the learning media design, Figure 2 contains categories of learning media content and Figure 3 contains instructions on how to use the media.

Figure 4. Material of Production film management

Figure 5. Production material

Figure 6. Tutorial video

Figure 4 explains the content of the material, namely production, Figure 5 explains the production processing material and Figure 6 explains the video tutorial on the film production process.

Figure 7. Developer profile

Figure 7 can explain that this display is a profile of a learning media developer. Learning media that has been developed then needs to be validated by media experts and material experts. Validation of learning media carried out by media experts aims to determine the suitability of the product as a learning media and as a basis for improving and improving the quality of learning media. Validation is carried out by showing the media created and filling out a questionnaire containing 14 questions with 3 assessment aspects, namely ease of use, attractiveness of appearance, language and readability. The results of media expert validation can be seen in table 1.

Table 1. Media Validity Results

No	Assessment Aspects	Media Validator			Category
		V1	V2	V3	
1	User convenience	80,25	85,50	85,50	Valid
2	Attractive appearance	85,00	90,00	80,65	Valid
3	Language and readability	90,50	85,25	86,50	Valid
Average		85,45 %			Valid

Based on table 1, it can be explained that the results of the assessment by 3 learning media experts obtained an average score of 85.45%, meaning that the learning media created was declared "Valid". The basis for declaring valid is if the value is (>66) and invalid is the value (<=66).

And the results of the material expert validation aim to find out opinions about the suitability of the material from the resulting learning media. Material validation is also carried out by showing the learning media created and submitting a questionnaire to the validator. This questionnaire consists of 13 questions which are grouped into two aspects, namely achievement of objectives and suitability of the curriculum. And the results of the material expert validation can be seen in table 2.

Table 2. Material Validity Results

No	Assessment Aspects	Material Validator			Category
		V1	V2	V3	
1	Goal achievement	84.25	90,50	84.10	Valid
2	Curriculum suitability	86,75	88,90	85,66	Valid
Average		86.69 %			Valid

Based on table 2, it can be explained that the results of the assessment by 3 material experts obtained an average score of 86.69%, meaning that the learning media created was declared "Valid". The basis for declaring valid is if the value is (>66) and invalid is the value (<=66).

After the learning media is declared valid, a practicality test is then carried out using a questionnaire by the object-oriented programming subject teacher to find out whether this Android-based learning media is really practical in learning. This questionnaire consists of 4 assessment aspects, namely material content, media appearance, language and convenience. The number of questions/statements is 10 and the practicality test results can be seen in table 3.

Table 3. Teacher Practicality

No	Assessment Aspects	%	Category
1.	Material Contents	78.24	
2.	Appearance	90.60	
3.	Language	87.25	**Practical**
4.	User Ease	90.42	
Average		86,62	

Based on table 3, it can be explained that the results of the subject teachers' assessment obtained an average score of 86.62%, meaning that the learning media created was declared "Practical". From the material aspect, they only got 78.24%. This requires adjusting the material to the existing curriculum.

Next, a practicality test was carried out by 35 students taking object-oriented programming subjects to find out whether this Android-based learning media was practical or not. This questionnaire consists of 4 aspects of assessment, namely the content of student interests, appearance, language and student activity. The number of questions/statements is 10 and the practicality test results can be seen in table 4.

Table 4. Hasil Uji Praktikalitas Siswa

No	Assessment Aspects	%	Category
1.	Student interests	84.50	
2.	Appearance	82.22	
3.	Language	79.87	**Practical**
4.	Student activity	87.15	
Average		83,43	

Based on table 4, it can be explained that the assessment results of the 35 students who took the subject obtained an average score of 83.43%, meaning that the learning media created was declared "Practical". The basis for declaring practical is if the value is (>66) and impractical is the value (<=66).

CONCLUSION

Based on the results of research and discussions on the development of Android-based learning media on film production management material at SMK Negeri 4 Padang, it can be concluded that the creation of this learning media uses the Adobe Animate application software and has been tested for its level of validity and practicality. The media validity test was carried out by 3 validators and the material validity test was carried out by 3 people. And the media validity test results obtained an average of 85.45% in the Valid category. The material validity test results were 86.69% in the Valid category. Thus it can be concluded that this learning media is declared very valid.

The practicality test of Android-based learning media from teacher practicality data was 86.62% in the practical category. Meanwhile, the response from 35 students was 83.43% in the practical category. Thus, it can be concluded that the response of teachers and students to Android-based learning media is practical, so it is suitable for use in the learning process in class XI Broadcasting at SMK Negeri 4 Padang.

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