

# Analysis of Android-Based Learning Media Needs as Support for Online Learning in Writing Short Stories

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**Abstract**—The purpose of this research to analysis of students' needs for android-based learning media in short story text learning. This student needs analysis was conducted on high school students in Kampar Regency. The research method used is quantitative research methods. Data were obtained through questionnaires distributed to high school students in Kampar Regency. The questionnaire was analyzed in several main indicators, namely learning indicators, learning processes, learning evaluations. The results of the analysis of the needs of android-based learning media indicate the need for the development of android-based learning media as a learning support. Students expect an innovation of technology-based learning media that is easily accessible in the process of learning to write poetry. Students expect effective and accessible learning media at any time. The results of the analysis of student needs will be used to develop learning media for writing short stories at the high school level in Kampar Regency.

**Keywords**—learning media, android, short stories

## I. INTRODUCTION

Technological developments force us to be able to coexist with technology. Especially during this Covid-19 period, the main learning system is online. More students access mobile phones as an intermediary tool in online learning. The success of online learning during the COVID-19 pandemic cannot be separated from supporting facilities, one of which is learning media. Various types of learning resource media, namely audio, visual, and audio visual. Learning requires careful preparation following technological developments. Interesting and innovative learning will encourage the implementation of a quality educational process [2].

The most influential thing on the education system in the world today is digital technology. Therefore, the implementation of multimedia learning is essential at this time. The thing that is a factor in Indonesia's learning achievement is the low competence of teachers in making a learning media. Teachers are less skilled in processing learning media [4]. The low ability of teachers in making a media is the main factor that causes the low achievement of learning in Indonesia, the lack of skills of educators in learning management. This resulted in the learning achievement of students to be low [5]. The component that stimulates students in an environment to learn is the media [3]. Learning will be difficult to achieve properly if teacher competence is still minimal in processing learning media

[10]. The thing that must be considered in the use of learning media is interest in using learning media. Sound or audio, animation or removing images, video or audio-visual, text, symbols, and other media components must be integrated into multimedia. These elements will provide benefits for those who use the media if these elements support each other. The learning process cannot be separated from the use of the internet [7]. Explains that the use of the internet cannot be separated from the learning process [1].

Quality learning requires various efforts to achieve it, these efforts are to meet learning support facilities, one of which is interactive multimedia. Interactive multimedia can provide accurate information, can be directly applied to the media, and can increase students' learning motivation by using attractive multimedia displays. The low ability of teachers to produce media is the main factor that causes poor academic performance in Indonesia and the lack of learning management skills for educators. Methods to help students understand this concept have an impact on students' low academic achievement [5]. The media are various components in the student environment that can stimulate student learning. If the teacher still has a low level of development and the selection of media is not appropriate, then the learning objectives in the classroom will not be achieved optimally. Students who have difficulty absorbing material can use media and simulations to help them understand the material [3].

Learning media that suits current needs is mobile learning media. Mobile learning media uses Android-based mobile technology devices for learning media. The Android operating system provides an open platform (open source) that can be used as an opportunity to develop learning media that are needed today [9]. The advantages of using mobile learning tools are as follows. (a) Learning is not distance linked, (b) can enhance student-centered learning (c) to manage different learning needs of students, allowing students to gain knowledge at their own pace, (d) reduce cultural and communication barriers between teacher and student. Based on the advantages and benefits, mobile learning can be used as a necessary tool today. Furthermore, mobile learning can also be used as an alternative learning resource that is not a textbook, to attract attention and increase students' learning motivation [8].

Learning today is not only the use of computer or laptop software, but a way of learning that can be combined with the use of internet technology. The field of education continues to move dynamically, especially to create more interactive and commercial educational facilities, methods, and materials [6]. Commonly available media include books, magazines, newspapers and tabloids for disconnected media, while online media include radio, television and internet transmission [6]. The use of the Internet or applications in learning media has the potential to be implemented in the world of education.

Android is an operating system for mobile phones, smartphones, and tablets. The function of the Android operating system is to act as a bridge between the device and the various applications it uses, enabling users to interact with their devices and run applications, facilitating the performance of digital-related activities. In theory, Android is an operating system designed specifically for smartphones and tablets. The Android system has a Linux base as the basis of the Android operating system. Linux itself is an operating system designed specifically for computers [8]. Considering the development of learning media is very much needed considering that schools currently adopt print media and cannot keep up with the pace of technological development, the development of learning media is very necessary. The use of Android-based learning media has the potential to help improve student academic achievement in the form of cognitive learning outcomes and student learning motivation. Based on several studies related to the use of Android as a supporter of learning media, it shows differences in learning outcomes between using traditional media for learning and using Android-based learning media for learning. The results of other studies show an increase in learning outcomes [6].

## II. METHODOLOGY

This research includes quantitative research. The sampling technique in this study was random. Sample by using a certain population or sample to represent all the population. The instrument used in this study was a questionnaire to determine the needs of students. The sample in this study were students of class XII and XI SMA in Kampar Regency. This research is a quantitative research. Argues that quantitative research methods are research methods that involve the use of positivist philosophy [9]. This type of quantitative research tends to use a certain population or sample as a representative of the research and is generally used. The sampling technique is based on certain considerations or is carried out randomly using the entire population. The focus of this research is to analyze students' needs for Android-based learning media in high school students in Kampar Regency. The purpose of this study was to determine the students' needs for learning media for high school students in Kampar Regency.

## III. RESULT AND DISCUSSION

Based on the results of the questionnaire that has been distributed, we can analyze several main indicators, namely indicators of teaching materials, learning methods, learning evaluations. The results of the analysis of the three indicators can be explained in more detail in the following explanation.

### A. Teaching Material Indicator

Indicators of teaching materials are translated into six statements. The following is an explanation of the results of the questionnaire analysis of each statement for the indicators of teaching materials.

1) *Statement-1 (P1)*: The material for writing short stories at school is taught using an interesting learning model/method with good category only 48.6%. This shows that the learning model is still lacking or low from the very good criteria. In fact, this point is an essential part of this needs analysis, namely to innovate interesting learning media. Less attractive learning media will result in non-optimal learning quality.

1) *Statement-2 (P2)*: The material presented in learning to write short stories has utilized technology such as android applications. Answers categorized as very good only amounted to 51.4%. This shows that the material presented in schools is still lacking in utilizing technology. Whereas in the 4.0 era, learning media that supports and is based on IT are needed so that they are able to compete with the times. The maximum use of technology media will certainly have an impact on maximum learning outcomes.

2) *Statement-3 (P3)*: Students feel that the material about writing short stories is not complete and structured. Based on the results of the questionnaire, only 21.6% stated that the material for writing short stories was complete and structured. Completeness of teaching materials is a supporter of the achievement of learning objectives to write short stories. One of the best understanding of learning concepts is the completeness of teaching materials.

3) *Statement-4 (P4)*: Students feel that the material about writing short stories is not complete and structured. Based on the results of the questionnaire, only 21.6% stated that the material for writing short stories was complete and structured. Completeness of teaching materials is a supporter of the achievement of learning objectives to write short stories. One of the best understanding of learning concepts is the completeness of teaching materials.

4) *Statement-5 (P5)*: Students understand the material for writing short stories in detail. Respondents' answers as much as 24.3% of students understand the material in writing short stories in detail. This means that students' understanding of the material has not been maximized. This shows that the students' understanding of the short story material has not been maximized. The low understanding of these students can result in low learning outcomes and learning objectives.

5) *Statement-6 (P6)*: Students understand the concept of learning faster if there are many collections of short stories examples and exercises for my inspiration in writing short stories. Respondents' answers amounted to 59.5%. The numbers obtained are quite large because students understand the need for models or examples that can be used as guides for students to learn. This needs to be prepared more optimally in learning media so that the concepts taught are conveyed properly (Fig. 1).

### B. Learning Model Indicator

Indicators of teaching materials are translated into five statements. The following is an explanation of the results of the questionnaire analysis of each statement for the indicators of teaching materials.

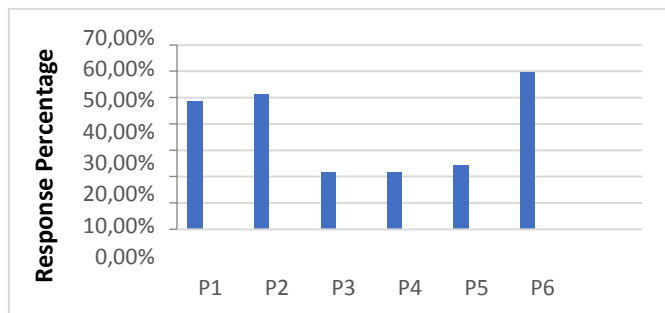


Fig. 1. Analysis of Android-Based Learning Media Needs in Learning to Write Short Stories Indicators of Teaching Material

1) *Statement-1 (P1)*: Learning material for writing short stories is delivered with an innovative or latest learning model. Respondents' answers were 51.4%. This category is still far from very good expectations. Innovative learning can certainly stimulate students to be able to understand concepts well. If learning is not innovative, of course, students find it difficult to adapt well.

2) *Statement-2 (P2)*: Students hope that in learning to write short stories there is a need for technology-based learning media, for example android-based media. Respondents answered 64.9% hope that there is an Android-based media, this shows a fairly large percentage. The use of mobile phones for students is very close so that this device can be used as a support and source of student learning. The teaching materials available on Android are expected to be easily accessible so that the quantity of students to learn is more optimal.

3) *Statement-3 (P3)*: Teacher's learning media in writing interesting short stories. As many as 43.2% of respondents answered interesting, meaning that less than half of respondents answered interestingly. This explains that learning media still need to find the right solution so that students are interested in learning and the latest innovations as a magnet to attract students to understand concepts in learning media (P3).

4) *Statement-4 (P4)*: Students expect learning media that is easily accessible at any time. Respondents answered that 75.5% of students expect learning media to be easily accessible. So far, textbooks seem difficult to carry everywhere and are less effective in today's technology-based era. Learning utilizes technology more so that it is hoped that there will be a solution regarding learning media that utilizes the convenience and sophistication of technology (P4) (Fig. 2).

5) *Statement-5 (P5)*: Teachers use various learning media in learning to write short stories 48.6%. Respondents' answers as much as 48.6% of teachers used a variety of learning media. So far, the dominant teacher explains the theory conventionally so that learning is less varied (P5).

### C. Learning Evaluation Indicator

Indicators of teaching materials are translated into six statements. The following is an explanation of the results of the questionnaire analysis of each statement for the indicators of teaching materials.

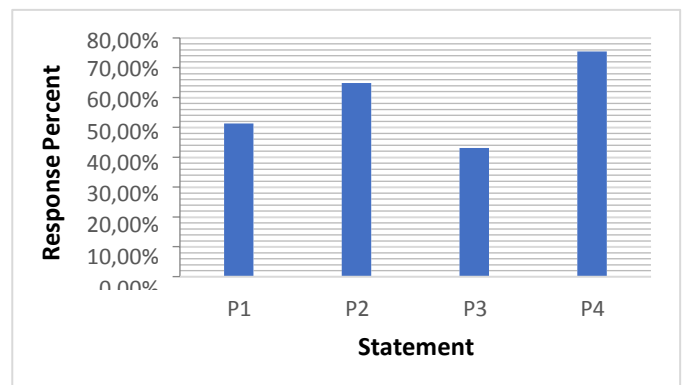


Fig. 2. Analysis of Android-Based Learning Media Needs in Learning to Write Short Stories Indicators of Learning Model

1) *Statement-1 (P1)*: The exercises provided did not motivate students in writing short stories. A total of 37.8% of respondents answered that the exercises provided did not motivate students. This is still not as expected because it is expected that more than 80% of respondents answered satisfied so that it is included in the good category. This is an important part of developing teaching media so that practice can motivate students to continue learning.

2) *Statement-2 (P2)*: Students feel that the exercises or assignments regarding writing short stories are less detailed and difficult to understand. 32.4% sometimes. Almost the same as the statement about the exercise that still does not motivate students in writing short stories. There are still quite a lot of students who consider the exercises or assignments regarding writing short stories to be less detailed. This is one of the factors that are less than optimal student learning outcomes in learning to write short stories.

3) *Statement-3 (P3)*: Students work on the task of writing short stories based on the instructions and questions in the textbook. Respondents answered as much as 54.1%. Students write short stories according to the instructions and questions. This is one of the factors that have not been optimal in the tasks that students do.

4) *Statement-4 (P4)*: Students can write short stories in accordance with linguistic rules. A total of 62.2% of respondents wrote short stories according to linguistic rules. This figure is still far from the very good category and is in accordance with the category of linguistic rules. This can be an evaluation so that student learning outcomes in short stories are in accordance with linguistic rules. Linguistic rules are one of the indicators of success in writing short stories.

5) *Statement-5 (P5)*: Students always receive the results of the assessment of the short story text that has been written. Only 48.6% of respondents receive feedback on the results of short stories so that students do not have further evaluation material so that subsequent learning outcomes can be improved and can determine students' abilities in writing short stories (Fig. 3).

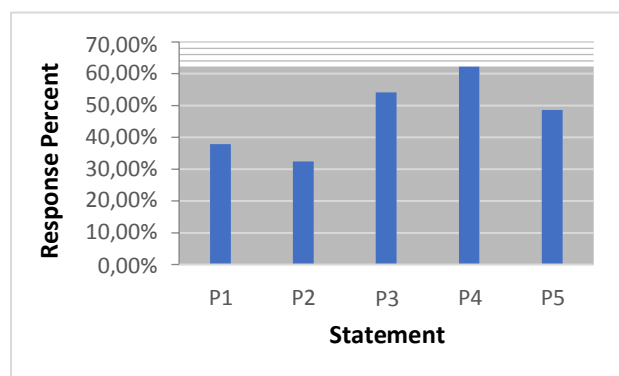


Fig. 3. Analysis of Android-Based Learning Media Needs in Learning to Write Short Stories Indicators of Learning Evaluation

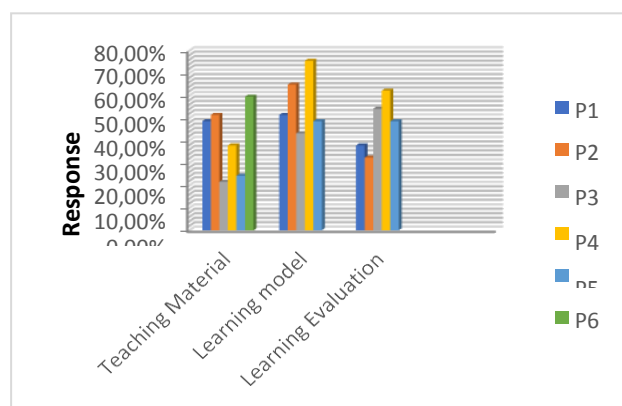


Fig. 4. Analysis of Android-Based Learning Media Needs in Learning to Write Short Stories

Based on the diagram, it can be seen that almost all statements have not reached the very good category. This is the basis that it is necessary to improve an innovative learning media so that the level of student satisfaction increases and learning outcomes are maximized. Interesting learning media will certainly support the learning process so that student learning outcomes and student understanding of the concepts being taught are also optimal (Fig. 4).

#### IV. CONCLUSION

Based on the results of the needs analysis of the indicators of learning materials, learning models, and evaluation of learning, it can be concluded that there is a need for the development of teaching materials that are easily accessible, effective and side by side with technology. Innovative learning media will help students from boredom of learning from monotonous learning resources. Technological sophistication can be used as a means of introducing teaching materials so that students can use technology for positive aspects.

Android-based learning media is needed with the aim that the material or concept conveyed can be accessed at any time and is equipped with supporting features in the form of audiovisual so that it is more interesting and varied. The more sophisticated technology is, it is hoped that the learning process can take advantage of these conditions so that it can support the optimal learning process and the learning objectives are achieved properly.

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