Developing Android Based Interactive Learning Media to Master Grammar Skill

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ABSTRACT

This study aims to produce an android-based media and improve the understanding of Grammar students in the English language. This type of research is research and development which refers to the 4D development model: definition, design, development, and disseminate. The purpose of R&D development is to produce application products and verify the effectiveness of learning videos, identify the need to develop products, and validate products that meet the requirements, and criteria for effectiveness and efficiency. The subjects of this study were Class X TO and Class X TJKT SMKN Campalagian. This research uses questionnaire instruments, namely (1) a media expert validation sheet to measure the feasibility of media, (2) a material validation sheet to measure the feasibility of media, (3) a student response questionnaire to determine the response of students to the attractiveness of the media developed. The findings showed that the process of creating Android-based interactive learning media had reached the define stage, which included front-end, student, concept, task, and learning objective formulation. This included creating learning materials, choosing media, and creating an initial design. Develop which consists of testing the feasibility/validity of product revisions, trials, and initial designs, and disseminate which consists of the influence of Android application-based learning media on improving student grammar skills. and Learning media declared effective based on the results of data analysis, Researcher found that there is an effect or there is a significant increase. The average value of the post-test experimental class is 83.13 while the value of the post-test Control class is 63.30. Successfully developed products can be implicated in any school.

INTRUDUCTION

Innovation in education was indeed very necessary, not least in English subjects, students are expected to understand English material well. In English lessons, there are four skills that students must master, namely speaking, listening, reading, and writing. Hence, apart from these four skills, in learning english, it is necessary to be supported by other elements of the language, namely vocabulary, pronunciation, grammar and structure M, Supandhi et.,al 2022). Furthermore, according to Larsen-Freeman that grammar is a rule, grammar is a system of structures that have meaning and are governed by certain pragmatic constraints. Therefore, the definition of grammar can be defined as a rule in forming sentences, including an explanation of the meaning conveyed in certain forms.

Based on the results done by interviewing one of the teachers of SMKN Campalagian, the teacher explained that teaching grammar to students is not easy. There are many aspects that students should pay attention to in learn grammar. Thus, many students are bored and even lose interest in learning for the reason that learning grammar is difficult. furthermore, she takes a strategy or learning media that is easily accessible to students, especially in understanding grammar. The reason of the teacher said that in learning by using a conventional book will make students stress and demotivation in learning English, especially grammar. The teacher hopes that there will be interesting media and appropriate activities in learning the grammar to improve grammar skills because they are not yet available at the school and can achieve competency standards.

Therefore, He took a stimulus that can arouse the spirit and motivation of students with modern learning methods with interesting and creative teaching materials that can interest students, which can make students curious in accordance with their time. Based on these problems, researcher tried to develop android- Based Learning media, which focused on grammar material. Because the material taught shows a less satisfactory value and material which requires more interactive understanding and explanation. Based on the identification of the problem that had been described, this study establishes the formulation of the problem as follows:

1. How was the development of English learning media through Android- based for mastering grammar skill?
2. How was the effectiveness of Android-based interactive learning media for mastering grammar skill?

RESEARCH METHODS

This research was conducted on Maret 2024. this research location at SMKN Campalagian which was located at Jln. Tenggelang Desa Baru Luyo, Polewali Mandar Regency, West Sulawesi Province. Research conducted refers to research and development. According to Astuti et al., (2017) R&D is a research method that has the ultimate goal of producing practical contributions that can be directly applied as a response to problems that have been analyzed previously. Then, this study adapted the development procedure to the 4D work model according to Thiagarajan (Sa'adah&Wahyu, 2022).

Data collection techniques and conducted in this study by using interviews, tests and questionnaires. while the data analysis techniques used are tests and questionnaires to help answer the problems in this study.

RESULT AND DISCUSSION

This research has two purposes. The purpose of this study is in the process of developing Android- based interactive learning media and to determine whether the use of Android-based interactive learning media can effect students grammar skills.

a. Process of ELM Application

In research development to understand a product in the form of Interactive Learning media based on android and a variety of grammar material consisting of part of speech and tenses as the media material. Interactive Learning Media

based on android and also the response of students to Interactive Learning media based on android.

The ELM APP employed image to gain the students attention. According to Mardiah (2020), images in the media are learned in a way that is relevant to conform with the material so that learning becomes interesting.

The research method used is research and development with 4D model method from Thiagarajan. The stages of this 4D model consist of 4 stages, namely: (1) Defining, (2) designing, (3) developing, and (4) Disseminating.

The stage of definition includes 5 stages. The first stage is the analysis stage. Researcher conducted interviews with English teacher at SMKN Campalagian. It was found that students tend and students feel bored and have difficulty to understand the grammar material taught by teacher. The teacher said that students have different characters and have different ways of understanding the lesson so it affects the understanding of the material given. The second stage is the analysis of students. Researcher analyzes the needs of students through observation. The data from the needs analysis of students stated that they did not understand the grammar material. The results of the needs through interviews show that students need an interesting supporting medium to learn grammar. for that researchers provide learning media that can attract the attention of students in terms of having an fascinate background and focus on one theme, namely "bee", the material is simple and easy to understand and contains questions under the material listed therefore students were happy when learning is done through technology. In line with Sutejo and Yogi (2022), learning by utilizing technology can bring alternative benefits in developing learning media such as learning processes that would fascinatingly.

The third stage was the analysis of tasks, tasks presented in the Android application-based learning media in the form of evaluation. The fourth stage was concept analysis. Researcher identified the material components contained in learning outcomes. The fifth stage was when the researcher formulates learning objectives in line with student achievement.

The next step is the design stage. This stage includes 3 stages. The first stage is the preparation of learning materials. The material contained in this Android application-based Interactive Learning media includes grammar material. The second stage is the selection of media. Researchers chose Interactive Learning media based on Android applications that are tailored to the needs of students. The third stage is the initial design. The researcher chooses the format, design, and instruments to be used. The initial format design includes start, fill, and end. The start section includes the titles media name and start. The contents section includes sample material. and the last part consists of evaluations. At the design stage of the instrument, researchers used the instrument validation media and student responses. Instrument media

validation includes instrument media expert validation and material expert validation. And this is supported by previous research (Perbawa et al., 2020) that in the research there are instruments used are media validation sheets to determine the quality of the media produced, so that it is feasible to be tested, material validation sheets used to determine how to complete the material contained in the media, and student response questionnaire sheets. Media validation consists of 12 statements related to accuracy and attractiveness, and material validation consists of 16 statements related to efficiency and accuracy.

The student response instrument contains 20 questions related to software aspects, learning aspects, and visual communication aspects.

Furthermore, researchers created interactive learning media based on Android at the development stage. It should be evaluated and tested on students by experts and this is supported by previous research that produced the developed Learning media required questionnaires, namely validation questionnaires and student response questionnaires (Fabiana Meijon Fadul, 2019). In terms of validation which includes validation of media experts and material experts, the results reached 96% with very decent criteria. This indicates that the material is in harmony with the CP, and some features encourage student interest. However, the results of material validation showed a value of 97% that meets the criteria of very feasible. the results of this study are supported by previous research, that the data conversion criteria assessment questionnaire validation and assessment of student response has a percentage of assessment ranging from 76% -100% so that it is included in the category of very feasible (Wulandari et al., 2019).

Based on the assessment of media experts and material experts, developed media are declared worthy as learning media. This is also supported by (Firmansyah et., 2019) that the theoretical feasibility of the media in terms of the feasibility of both aspects: the feasibility of the media includes the format, quality, and suitability of the concept, while the feasibility of the material includes the suitability of the media content with learning objectives.

After validation by media experts and material experts is completed, expert suggestions and comments are used to carry out successive revisions to produce a better product. The following are examples of improvements made based on expert advice and comments: 1) Media Expert, media validation results by Mr. Ahyadi M. Pd. Android-based interactive learning media instrument that needs to be given a sound when you want to click, Choose the appropriate color, great! your learning media app is ready to complement in the classroom. 2) The results of material validation by Mr. Armin Miramorgana S, Pd. on Android-based interactive learning media tools simply reduce the number of questions because students will be bored with the many questions that many.

After the product is declared feasible by experts, Android-based interactive learning media is tested on students of Class X SMKN Campalagian. The trial of this product was conducted on 30 students of Class X. The purpose of this product trial is to determine the attractiveness of Android applications by looking at software aspects, learning aspects, and visual communication aspects. This is supported by (Hada et al., 2021) that there are several components such as software aspects, learning aspects, and visual communication aspects to determine the attractiveness of Android applications. The results of product trials on students obtained a score of 91% which is categorized as very interesting.

The last stage of expansion. At this stage, the researchers applied a ready-made Android- based interactive learning media to Class X students of SMKN Campalagian to determine whether this media has an effect on improving students ' grammar skills or not. Statistically, the researchers found no effect or significant increase. This was evidenced by the results of the analysis of T-test data is higher than the T-table. The treatment given by researchers as many as 7 times in the experimental class meeting. Interactive Learning Media based on Android is given as a treatment in the experimental class. All students said that they gained new insights into how to learn English, especially in grammar materials by using technology.

b. Effectiveness of ELM Application

Based on the results of hypothesis testing as a whole by using an Independent Sample t-test. Thus the null hypothesis (Ho) is rejected and the alternative hypothesis (Ha) is accepted. The results of statistical calculations of the pre-test and post-test showed an increase in grammar skills of students in the experimental class is better than the control class in Class X SMKN

Campalagian. This can be seen from the difference between pre-test and post-test scores in both classes, namely the experimental class and the control class. The mean value of the experimental class post-test is 83.13 while the mean value of the control class post-test is 63.60 statistically experiment class is higher than the mean value of pre-test. The average value of the post-test Control class increased from 50.33 to 63.60 and the average value of the post-test experimental class increased from 39.00 to 83.13. This is in line with Muhajir (2022), research shows that the use of Android-based interactive learning media can significantly improve the grammar ability of students in experimental classes compared to classes that do not use Android-based interactive learning media. This process uses quantitative techniques, and quantitative design is used. Samples used in this study were 30 students of Class X SMKN school as a control and 30 students of Class X TJKT SMKN school as an experiment. To collect these data, researchers used instruments consisting of pre-test and post-test. Furthermore, the study used a T-test to

determine whether the use of Android-based interactive learning media has a significant impact on students ' grammar skills. Based on the results obtained after the study, the results showed that the Sig (2-tailed) of 0.00 which is smaller than 0.05. Previous research has also obtained research results that have been published, that the Learning media is able to provide a significant assessment through pre-test and post-test with regard to the results of the t-test (Setiawan et al., 2018).

The results of the study created an interactive learning media based on Android with grammar material that is valid and can be used while learning. This media has material and evaluation. Therefore, learning will not be boring, Android-based interactive learning Media is designed with an appealing background. The overage of this Android-based learning media can be used anytime and indefinitely, as well as practice questions that help students find the right formula to answer the question. The deficiency of this media can be used on Android phones only and cannot be used on iOS..

CONCLUSION

The resulting product is an interactive learning media based on Android grammar material Class X SMKN Campalagian. Application products in its development apply 4D models. The Media was developed with the help of Canva, PowerPoint, iSpring Suite 10, and Web 2 APK Builder Pro. And in the media, grammar materials are published that focus on parts of Speech and Tenses. Based on the validation results on the two experts, namely media experts and material experts, the development of android-based interactive learning media is very rapid and feasible, meaning that Android-based interactive learning media is very feasible to use and test on students. Based on the results of product tests on students about the attractiveness of learning media, students obtained a very interesting category. That is, interactive learning media based on Android can be applied to learning. The results can be seen from the data analyzed by using a T-test to test the research hypothesis at a significant level of 5%. Test values-T > Table-t Sig. (tail 2) 0.00 < 0.05. In conclusion, this Android- based interactive learning media has a significant increase in improving students ' grammar skills

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