E-ISSN : 2721-8236 Vol. 5 No. 2 December 2024
P-ISSN : 2722-2667

INTERACTIVE M-LEARNING MEDIA BASED ON SMART APPS CREATOR OF ENGLISH GRAMMAR

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Abstract

This study aims to produce an interactive M-learning media design based on Smart Apps Creator for the teaching and learning process, particularly the Simple Past Tense, through validity, practicality, and effectiveness. It is a development study with a 4-D design, Define, Design, Develop, and Disseminate, but this study only focused on the development stage. The subjects of this study are eighth-grade students of SMP Awaluddin Kubu Raya and three validators as three experts, material and media experts, and field trial subjects. The data collection techniques used are indirect communication techniques and measurement techniques. The data collection tools used included validation sheets, which consist of media validation sheets and tests. The study results conclude that the interactive M-learning media design based on Smart Apps Creator for teaching English on Simple Past Tense material at SMP VIII Awaluddin Kubu Raya was categorized as very valid, practical, and effective. Therefore, it is hoped that this app will be used in the English teaching process.

Keywords: *M-learning, Smart Apps Creator, Simple Past Tense*

INTRODUCTION

English is a global communication tool that allows students to broaden their horizons, understand diverse cultures, and engage in international dialogue. Learning English can help students have wider educational and career opportunities. However, based on observations at SMP Awaluddin Kubu Raya, researchers found several complex issues related to English learning materials, especially the simple past tense.

Teaching materials play a significant role in controlling the teaching and learning process. They provide students with stimuli, support, and references to achieve their learning goals. Teaching materials guide teachers in engaging with students and involving them in the target language. Based on the results of interviews with an English teacher teaching the eighth grade at SMP Awaluddin Kubu Raya, it was stated that students still need help understanding and solving problems related to the Simple Past Tense. Simple Past Tense is used to talk about events that have already happened, repeated events in the past, and continuous events that are now finished (Harmer & Lott, 2004).

Grammar has been almost exclusively concerned with analysis at the sentence level. Simple Past Tense is an important tense for students to master because it is one of the most frequently used tenses in texts (Thornbury, 2006). Murphy (1985) argues that the simple past tense is a tense in English used to express past events or actions that occurred in the past and are completed. Azar (2003) also defines the Simple Past Tense as one of the tenses used to express activities that were done in the past and are completed at a specific time. Simple Past Tense describes or indicates an action that

began in the past. Depending on how we form the past tense, it may describe the action that occurred or was completed in the past, occurred at the same time as something else in the past, or continued to occur until or near the present. It describes or indicates an action that started in the past (Peter, 2016). However, students still need clarification about the Simple Past Tense. The score results of the practice questions and English assignments were still low or below the Minimum Mastery Criteria (KKM). In this school, the media used in the learning process was uncomplicated, and markers, whiteboards, and introductory PowerPoint presentations were still used.

Based on the English teacher's statements, the learning process only uses simple videos and photos related to the learning material. The teacher uses Google Drive and Google Classroom to share and give multiple-choice practice questions, written exercises, and assignments. The learning media used are merely tools for sharing information, not for improving students' skills, especially their English language skills. Therefore, the researchers designed M-learning. It is one of the alternative learning media that uses information and communication technology to implement learning. Mobile Learning is a learning media that makes it easier for students to access learning materials because this media uses mobile devices (Warsita, 2018). It is a use of technology, either separately or combined with information and communication technology, to be used as a learning media. Mobile learning application is practical and can develop students' mathematical problem-solving skills and abilities. The difference between the research conducted is in the content and the application used (El-Alfi et al., 2016). The results of Smith and Wang's (2013) study stated that learning through Mobile learning is viewed positively by students as an effective method to improve English grammar and reading skills.

Mobile Learning is a unique learning method because students can access learning materials, instructions, and applications anytime and anywhere. This can increase attention or focus on learning materials, make learning pervasive, and motivate students toward lifelong learning. In addition, smart app creation is a tool for creating interactive mobile learning media. Smart Apps Creator can be used to include animated content, making it more engaging (Ghozi, 2014; Khasanah et al., 2020; Warsita, 2018).

M-learning is one of the solutions to develop learning media that includes Simple Past Tense exercises. Cheung and Slavin (2013) claim that utilizing technology can improve students' learning outcomes or competencies and research findings. Smith and Wang (2013) stated that Mobile learning is viewed positively by students as an effective method for improving English grammar and reading skills. The difference between this research and previous studies is that Cheung and Slavin (2013) used i-MoL consisting of two i-MoL servers and an i-MoL tool, while Smith and Wang used development with accounts designed to be controlled by a specific program found in places called Program Derived Addresses (PDA). In contrast, this study uses M-learning based on Smart Apps Creator, a technology that can be developed as a learning medium and used

on mobile phones offline. Hence, the study designed M-Learning Based on Smart Apps Creator for English Grammar Skills, precisely simple past tense, to create a positive impact by using engaging and easy-to-use teaching materials with Android phones to learn Simple Past Tense. It is also expected to motivate students and help them understand simple past tenses.

METHODOLOGY

Research Design

This research design method is development, taking the design as a 4-D development model. There are four stages in the 4-D model design: Define, Design, Develop, and Disseminate by Thiagarajan (Sugiyono, 2015). The form of the 4-D model can be described with the following pattern:

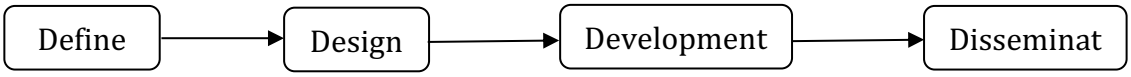

Figure 1. The 4-D Model

However, due to time, cost, and energy constraints, researchers only used the third step, namely, Development without disseminated. It caused the time was not enough to do it but it be done for the next research.

The define stage aims to obtain problems in the field, so it needs to observe and analyze the students' problems; it was found they had difficulties or problems in learning and teaching simple past tense. The design stage is to design a product adjusted to the problems obtained during the definition stage. At this stage, the instrument is also prepared. After that, the interactive M-learning media based on Smart Apps Creator containing simple past tense is designed with an initial design. The design is first adjusted to the learning objectives. The development stage aims to improve the media by evaluating and revising it before becoming a valid product.

Research Subject

The research subjects are the eighth-grade students of SMP Awaluddin Kubu Raya and three validators as three experts, material and media experts, and field trial subjects.

Technique of Data Collection

The data collection techniques in this research include indirect communication and measurement techniques. Indirect communication involves collecting data without direct interaction between the researcher and the subject, often through tools such as surveys or questionnaires. On the other hand, measurement techniques quantify variables analyzing statistically. These methods are crucial in ensuring the reliability and validity of the research findings.

Instruments

The data collection tools used are validation sheets, namely, media and posttest validation sheets. Validation sheets are made to meet the research objectives of media validity (media and material aspects), post-test question validity, and questionnaires for students and teachers. It is made to meet the research objectives of media practicality, and the test is a problem-solving ability test using descriptive questions. Post-test questions are made to meet the research objectives of media effectiveness. However, before the test is used as a research instrument, it is first tested to determine whether or not the questions are feasible. Before the test and questionnaire are used as research instruments, they are first validated by three validators: two teachers from SMP Awaluddin and one lecturer from IAIN Pontianak. A test is said to be valid if at least two validators say that the test is feasible to be used as a research instrument.

Technique of Data Analysis

The data analysis technique used is descriptive statistics. It is one of the important components in the Data Analyst learning process. It is part of the analysis process, where the data collected is processed to produce conclusions for decision-making. Media is effective if 70% of students in that class can achieve the minimum completion criteria (Damopolii et al., 2020). The table below shows the criteria taken from Bintiningtiyas, cited by Hodiyanto et al. (2020), to evaluate validity, practicality, and effectiveness.

Table 1. Product Validity Percentage Criteria

Percentage (%)	Validity Criteria
80%<$Skor$≤100%	Very Valid
60%<$Skor$≤80%	Valid
40%<$Skor$≤60%	Quite Valid
20%<$Skor$≤40%	Less Valid
0%<$Skor$≤20%	Invalid

Table 2. Product Practicality Percentage Criteria

Percentage (%)	Practicality Criteria
80%<$Skor$≤100%	Very Practical
60%<$Skor$≤80%	Practical
40%<$Skor$≤60%	Quite Practical
20%<$Skor$≤40%	Less Practical
0%<$Skor$≤20%	Impractical

Table 3. Product Effectiveness Percentage Criteria

Percentage (%)	Effectiveness Criteria
80%<$Skor$≤100%	Very effective
60%<$Skor$≤80%	Effective
40%<$Skor$≤60%	Quite effective
20%<$Skor$≤40%	Less effective
0%<$Skor$≤20%	Uneffective

The three tables above are essential tools in evaluating the extent to which Smart Apps Creator is helpful and appropriate in the context of the research. The analysis results of these three tables benefit researchers in making decisions related to the validity, practicality, and effectiveness of using this tool in their research.

FINDINGS AND DISCUSSION

This study initially followed the 4D approach (Define, Design, Develop, Disseminate) in its development, it was adapted into a 3D model for this specific context. This 3D model, comprising the Define, Design, and Development stages, was a strategic modification made due to time and budget constraints, which prevented the implementation of the Disseminate stage. The research development primarily focused on creating an Android-based learning application using Smart Apps Creator, designed to facilitate English learning, particularly the Simple past-tense material. The Smart Apps Creator-based M-Learning application underwent a rigorous validation process by experts, lecturers, and English subject teachers at SMP Awaluddin Kubu Raya. The positive results of this validation endorse the application's suitability for learning, both online and face-to-face, as per the specific requirements.

In this study, the researchers used Media Design Expert Validation and Material Expert Validation carried out by three people: two English teachers from SMP Awaluddin and one English lecturer from the Pontianak State Islamic Institute (IAIN Pontianak). Recommendations or suggestions from the validator are intended to ensure that the interactive M-Learning application built using Smart Apps Creator is ready to be tested on grade VIII students of SMP Awaluddin Kubu Raya in the context of research.

Validation of Material Experts

Material experts provide assessments based on several aspects, namely the relevance of the material, organization of the material, practice questions, language used, and its impact on learning strategies. The average assessment from material experts on the interactive M-Learning application created with Smart Apps Creator is presented in the following table:

Table 4. Material Validation

No	Validator	Percentage	Category
1.	Validator 1	85	Very Valid
2.	Validator 2	91	Very Valid
3.	Validator 3	88	Very Valid
Mean Score		**88**	**Very Valid**

Based on the validation results from three material experts, the average percentage is 88%, with the criteria "very valid." This indicates that the interactive M-Learning application built with Smart Apps Creator is suitable for use as a learning medium. Several material experts did not provide comments and suggestions regarding the material in this interactive M-learning application.

Validation of Media Experts

Media experts measure interactive M-Learning applications based on Smart Apps Creator by considering several aspects: language aspects, their impact on learning strategies, software engineering elements, and visual appearance. The average assessment results from media experts on interactive M-Learning applications containing English language learning materials, especially Simple Past Tense, are in the following table:

Table 5. Media Validation

No	Validator	Percentage	Category
1.	Validator 1	86	Very Valid
2.	Validator 2	89	Very Valid
3.	Validator 3	92	Very Valid
Mean Score		**88**	**89**

According to the above, the validation results by three media experts showed an average percentage of 89%, which is considered very valid in the assessment criteria. Therefore, the interactive M-Learning application that uses Smart Apps Creator and focuses on English teaching materials, especially Simple Past Tense, can be considered suitable as a learning medium without requiring revision.

Product Trial

Interactive learning was created using Smart Apps Creator. This application has been deemed suitable for testing based on validation results by experts. This trial phase was conducted on a limited scale because several obstacles prevented the implementation of trials on a larger scale. The school that became the trial's location was SMP Awaluddin Kubu Raya. In this case, the interactive M-Learning application

created with Smart Apps Creator for grade VIII students of SMP Awaluddin Kubu Raya. The following are the results of the product trials conducted in this study:

Practicality

The practicality of the interactive M-Learning application created with Smart Apps Creator was evaluated based on the results of the questionnaire responses filled out by 20 eighth-grade students at SMP Awaluddin Kubu Raya. This response questionnaire assessed the extent to which the Application was helpful in the learning process. The results of the response questionnaire reflect the level of practicality of the interactive M-Learning application based on Smart Apps Creator, with a practicality index measured from the student's perspective, which had an average percentage of 87%. Based on the assessment criteria, this percentage falls into the "very valid " category. These results indicate that this Application is practical for students learning English, especially simple past tenses.

The Application focuses on Simple Past Tense and students can easily navigate and understand the material. The Smart Apps Creator, housing the Simple Past Tense content, has been proven to aid students in mastering the learning material. The Application's use of clear and non-confusing sentences and its visually appealing design featuring supportive image elements further enhance its accessibility and attractiveness for independent learning.

Effectiveness

The Smart Creator application helps students to understand the subject matter better. This application provides more precise and exciting explanations through interactive images and animations so students can master the material more effectively. After conducting a trial of the Smart Creator application, researchers and teachers gave students a test on Simple Past Tense with 20 questions. The test results show that the Smart Creator application is very effective in helping SMP Awaluddin students achieve or exceed the KKM score in English because there were no students scored below the KKM (70). Smart Apps Creator allows students to review simple past-tense materials at their own pace. The application can contain simulations or exercises based on everyday situations, such as telling past activities, so students can understand the context of using simple past tense practically. The technology supports students' current learning style, which is more familiar with digital devices, making learning more relevant and effective.

Smart Creator application has succeeded in providing an effective learning approach so that all students can achieve the standards. The lowest student score is 80, the middle score is 85, which shows that most students are above average. This means that the majority of students get excellent results in English. The average student score of 86 confirms that overall, student learning outcomes are excellent and exceed the

KKM. 20 students who exceeded the KKM, it can be concluded that not only one or two students succeeded, but the entire class succeeded in achieving or exceeding the learning targets set. Thus, the data presented fully supports the conclusion that the Smart Creator application is very effective in helping students achieve or exceed the KKM in English subjects. This application has positively impacted student learning outcomes and helped them achieve excellent achievements in the subject.

Final Product

The interactive M-Learning application development approach based on Smart Apps Creator to improve Simple Past Tense skills in SMP Awaluddin Kubu Raya students has reached a positive completion stage. The results of the limited trial of the interactive M-Learning application have gone well and successfully. English teachers at SMP Awaluddin Kubu Raya provided positive feedback, indicating that this application is practical and useful in learning. English teachers observed that this application helped students understand the concept of Simple Past Tense. This shows that the application has achieved its goal of improving students' understanding of specific materials.

The application has been successfully tested and is considered ready to use. The next step is distributing it to students. Distribution can be done through a link that can be accessed through platforms such as Share It, WhatsApp, and Telegram and installed offline. This makes it easy for students to access it in various learning situations. For the next step, this study can be a basis for other researchers to carry out the dissemination stage, which involves the broader distribution of this application to schools or other educational institutions.

Thus, this study has successfully created an effective and useful learning tool for students. It has shown significant potential in enhancing students' understanding of English, particularly in Simple Past Tense. Moreover, this application is now ready to be shared with a wider audience, and future research can focus on its broader distribution and impact evaluation, inspiring optimism about its future potential.

This study focuses on creating an interactive M-Learning media design based on Smart Apps Creator containing English materials, especially Simple Past Tense. The aim is to improve students' English skills in making Simple Past Tense sentences based on correct formulas in class VIII of SMP Awaluddin Kubu Raya. In the development process, researchers followed the 4-D development model, namely Define, Design, Develop, and Disseminate by Thiagarajan (Sugiyono, 2015).

The Define stage aims to analyze the needs in the field so that researchers can understand the problems faced by students and find the right solution. The Design stage focuses on creating an initial product design that is adjusted to the needs that have been previously identified. The development stage aims to develop the product by

considering suggestions and input from experts and testing it on a limited basis. However, it is important to note that this study only reached the development stage due to the limited time and resources available. It was also limited to only one school and one class, so the next stage, namely Disseminating, could not be carried out within the framework of this study.

In the current technological era, teachers must use M-learning for learning and teaching because it can help make students more active, efficient, and exciting. M-learning is an alternative learning media that uses information and communication technology to implement learning. Mobile learning makes it easier for students to access learning materials because this media uses mobile devices (Warsita, 2018).

Mobile learning is a practical learning option that allows easy access and can be done in locations with internet connectivity. This learning model provides several benefits, including the availability of learning materials with attractive visualizations that can be accessed whenever needed (Ghozi, 2014). Shuib *et al.* (2015) state that Mobile learning must be utilized to meet the needs of students who are learning English today.

The researchers used Smart Apps Creator software as a tool to create interactive Mobile Learning Media. It allows the addition of animated elements to the content, which can increase its appeal (Khasanah et al., 2020). It is a desktop application that allows the creation of mobile and iOS applications without requiring special computer programming skills. In this study, researchers conducted validation from experts in two aspects, namely Media Design Expert Validation and Material Expert Validation.

The validation results by three material experts showed an average percentage of 88%, with the criteria "very valid." This indicates that the interactive M-Learning application developed using Smart Apps Creator is worthy of use as a learning medium. Media experts evaluated the interactive M-Learning application based on Smart Apps Creator by considering several aspects, including language, its impact on learning strategies, software elements, and visual appearance. The validation results by three media experts showed an average percentage of 89%, which is considered very valid in the assessment criteria. Therefore, the interactive M-Learning application created with Smart Apps Creator, focusing on English teaching materials, especially Simple Past Tense, is considered suitable for use as a learning medium without requiring further revision.

The interactive M-Learning application developed with Smart Apps Creator was evaluated based on responses from 20 eighth-grade students at SMP Awaluddin Kubu Raya by filling out a questionnaire. The percentage of practicality measured from the student's perspective through the questionnaire had an average of 87%, which is in the "very valid or practical" category according to the assessment criteria. This shows that this application is efficient for students learning English, especially Simple Past Tense.

The material presented in the application, focusing on Simple Past Tense, has been proven to be easy to understand, making it effective in helping students understand the material and overcome potential problems during learning. Brilliant Apps Creator, which contains material on Simple Past Tense, has been proven to help students understand learning content. The Smart Creator application has proven to be very effective in helping students at SMP Awaluddin achieve or even exceed the KKM (70) in English because no students scored below the KKM.

This shows that the Smart Creator application has succeeded in providing an efficient learning approach so that all students can achieve the standards set by the teacher. The fact that the lowest score achieved by students is 80 reflects that most students have exceeded the minimum standard and achieved very good achievement in English. With the data presented, it can be concluded that the Smart Creator application is very effective in helping students achieve or exceed the KKM in English. This application has positively impacted student learning outcomes and helped them achieve outstanding achievements in the subject. These results is supported by Cheung and Slavin (2013) that Mobile learning is viewed positively by students as an effective method for improving English grammar and reading skills and Shuib *et al.* (2015) state that mobile learning must be utilized to meet the needs of students learning English today.

CONCLUSION

The design of interactive M-Learning media based on Smart Apps Creator for English learning in Simple Past Tense material in class VIII SMP Awaluddin Kubu Raya, using a 3D design model, is highly effective. The interactive M-Learning media based on Smart Apps Creator for English language skills in Simple Past Tense material in class VIII SMP Awaluddin Kubu Raya students is highly practical. In addition, the validation results from three experts show that the percentage of material validation is 88% with the criteria "very valid", and the percentage of media validation is 89% with the criteria "very valid".

The interactive M-Learning media based on Smart Apps Creator for English language skills in Simple Past Tense material in class VIII SMP Awaluddin Kubu Raya students is highly practical. Its practicality reassures educators about its usability in the classroom. In addition, the Smart Apps Creator application has proven to be very effective in helping students at SMP Awaluddin achieve or even exceed the KKM (70) in English subjects. No students scored below the KKM, indicating that the Smart Apps Creator application successfully provided a practical learning approach. This means that all students can achieve the standards set by the teacher.

Interactive M-Learning based on Smart Apps Creator, which has been developed in this study, can be proposed for consideration by other researchers for further

dissemination stages. The distribution of this application can involve other classes, other teachers, other schools, and on a wider scale so that its benefits can be felt by more students. The Interactive M-Learning based on Smart Apps Creator, still in its developmental phase, requires your valuable input. As it moves into the dissemination stage, your feedback will be crucial in ensuring its quality and effectiveness in practice. Consider adding a video explaining the material in interactive M-Learning based on Smart Apps Creator, which is based on Android. Videos can be a very effective tool for helping students understand the material better and more deeply.

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