

## Developing Mobile Learning Media in Teaching Passive Voice

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### ABSTRACT

*Mobile phones can be well integrated into English instruction as creative and innovative teaching media to increase students' interest and motivation. This study was carried out to discuss the development of Mobile Learning Media (MLM). The goal was to determine the design of mobile phones to be used as android-based mobile learning media and window learning media in the online learning process. It also analyzed the effectiveness of English learning using MLM. The study employed Sugiyono's Research and Development design, which included nine steps: potential and problems, data collection, product design, design validation by experts, product trial, revision of product I, usage trial, revision of product II, and final product. Questionnaires, tests, and learning media in the form of application package files as research instruments were used to collect the data. The collected data were analyzed using descriptive statistics and the independent sample T-test. The findings of this study were as follows: 1) the validation of experts' media and material was in the relevant interpretation of valid product. 2) MLM product is simple and practical of data to use. 3) The mean of pre-test and post-test results in this class showed a high significance, indicating that the product of MLM is one of the learning media that is very effective to use in the learning process. Students' perception was well-established, with 73.3 percent agreeing to use MLM in mastering passive voice.*

**Keywords:** *Developing Media, Mobile Learning, Passive Voice*

### INTRODUCTION

Technology-based learning has become a new concept in twenty-first-century learning since the development of technology has contributed to community activities (Nurmantara et al., 2020). In addition to the development of science and technology, teachers, as the main component of education in the world, need to be able to correct for and even exceed the development of science and technology that is developing in society. One of these is the need for teachers to create effective and innovative learning processes, including using learning media and approaches that are carried out as effectively as possible in a pleasant, passionate, and meaningful atmosphere. For example, Silberman (1996) asserted that learning English is for students to be able to express themselves effectively.

English as a foreign language requires four skills: speaking, writing, reading, and listening. Those skills must be integrated as much as possible when teaching English. Writing is one of the language skills that influences language ability. Writing is critical because it can be used as a communication medium to help us socialize and express our ideas, feelings, and

opinions. According to Taufiqulloh et al., (2018) several components in writing should be mastered, one of which is grammatical structure.

Grammar is essential to learning English; grammatical competence is concerned with communication ability. The difficulties in learning English are primarily due to grammatical systems that differ from those of the Indonesian language. For example, passive voice is a grammar topic in the English language. Passive voice is defined as when the original receiver becomes the subject of the preposition, and the original doer of the action becomes the object of the preposition “by” (Samelson,1980). This material was necessary for English students to understand.

Many students believe that learning passive voice is challenging. They were still confused about applying some differential structures on tenses and found it difficult to incorporate the sentence into the tense formula. Based on the result of the pre-observation in the Class XI IPS-4 of SMAN 09 Semarang, students had some problems related to the process of learning English, and we found that when the teacher tried to teach passive voice in class, the students felt bored since there are many formulae in passive voice. However, it is unfortunately difficult for the students to memorize them, and students lack interest in studying in this classroom. Besides, teachers also tended to use conventional media such as textbooks. Moreover, they rarely applied multimedia-based learning media in the learning process, like the use of PowerPoint multimedia. As a result, students were not involved in engaging effectively in the learning process, as shown throughout the study process.

Actually, those issues could be cleared up if the teacher was more creative in his or her approach to teaching, particularly teaching passive voice. The teacher should use appropriate techniques to establish the teaching and learning process in order to amuse the students' interest in learning passive voice.

In the midst of the Covid-19 outbreak, E-Learning is the best option for education. According to Suartama (2014), through e-learning, students can access the material anytime and from any location. In addition to receiving material that can be enriched or equipped with a variety of supporting learning resources, such as multimedia, teachers can support that. By using Smart Apps Creator as a learning tool, teachers may use the smartphones of their students as their main object and components to accelerate the learning process, using time-consistent media, especially in times of pandemics like this. The use of mobile learning media to learn English grammar, especially in the material of passive voice, seems more appropriate and meaningful to the subject of study. We have chosen this theme to help teachers integrate and

improve how students can learn English grammar in mobile learning media, especially in passive voice materials, interactively and creatively. Analysis problems in this research were formulated as follows based on the context of the study: (1) how was MLM developed to teach passive voice material?, (2) what is the effectiveness of MLM on students' passive voice material outcomes?, (3) How are students' perceptions of using MLM in learning passive voice?

## **LITERATURE REVIEW**

### **General Concept of Mobile Learning Media**

Mobile learning is defined as any service or facility contributing to knowledge acquisition irrespective of time and place (Lehner & Nosekabel, 2002). According to Vavoula & Sharples (2002), learning can be considered mobile in three different contexts: learning is mobile concerning space, it is mobile due to the different places, and it is mobile in terms of time. Therefore, mobile learning can provide training to students wherever and whenever they need it. The content and the geographical extent of M-learning are unlimited so virtual classrooms are accessible at all times (Hosseini et al., 2009).

Nowadays, the development of information and communication technology has brought significant changes in various fields, including in the field of education. Mobile learning media can transform learning experiences and lead students to develop their thinking skills, analysis, and learning plans (Mardiana & Kuswanto, 2017). Technology-based mobile learning is one of the information technologies that can support the learning process. The development of media learning is affected by technological development and the role of life.

Some studies have been conducted to develop mobile learning media that can facilitate students in learning grammar. Badroeni et al., (2022) designed a Tenses Master Application that help students. When applied in teaching Class X of vocational school, the results showed that the students learning outcomes in grammar were better than those who did not use mobile learning media. Android Application called Mobile-based Learning was also used Safara & Zaim (2019) and proved that it helped students learn not only grammar material but also other pedagogical aspects like problem-based learning, collaborative learning, interactive learning, experiential learning, and blended learning. Another kind of mobile learning media was Multifunctional English Learning Device (MELDe) developed by Islami (2020) which was proven practical to use in learning grammar at junior high school level.

The previous studies show that the use of mobile learning media in this era is increasing as an alternative use of technology to facilitate students in learning English particularly

grammar so that they can learn English easier and more practical so they become interested and motivated in learning. With the same aim, this study particularly focused on developing Mobile Learning Media to help students in learning passive voice.

### **English Grammar**

Grammar plays a significant role in the sentence in English. In English, each sentence always contains a tense. Nurrahmatiah (2010) defines grammar as a form of language or a phrase of a verb used to express a relationship of time. Riyanto (2007) said that tense refers to the form that the verb takes in order to communicate information. Usually, this information relates to time. So, if a language verb expresses time, a grammar is structure. Structural grammar, identified with linguists of this type, provided a comprehensive way of defining a language's structure in terms of its morphology and syntax. Each word within a given sentence in such grammar is classified in accordance with the manner of using it, and 'patterns' or 'structures'.

Furthermore, grammar is how words change themselves and group together to make sentences (David, 2004). Grammar is what happens to words when they become plural or negative, or what order is used when we ask questions or join two clauses to make one sentence. There are some materials for teaching English in grammar, one of which is a structural sentence. A sentence may be in two types of active sentences and passive sentences. We may be familiar with the following aspects of English grammar:

### **Passive Voice**

The passive voice indicates that the subject is the patient or recipient of the action indicated by the verb. Many experts have set out some definitions of passive voice. For example, Murphy (1985) said that if you want to say who did or what caused the action, use it in a passive sentence. Another opinion states that the passive voice indicates that the subject receives the action, Hasanah (2017) states that active voice is used when the verb is in the active voice, the person or thing denoted by the Subject is said to do something; as we love it. Passive voice is used when the verb is in the passive voice when the person or thing denoted by the Subject is said to suffer something; because I am loved. In addition, Riyanto (2007) believes that passive voice is used when we want to say that the subject (I, We, They, You, He, She, It) is not a doer but an action.

According to Suherman (2013), in a passive voice sometimes by + agent not included if:

- a. It is not important to mention the perpetrator, such as: "The fan has been put there".
- b. Has become the profession of the perpetrator, such as:

"My letter was brought from the post office (by the postman)".

c. It is not a secret to the general public, such as:

"The Suramadu Bridge was built in 2008 (by the government)".

d. The perpetrator is unclear (indefinite pronoun), such as someone, somebody, anyone, etc., like so: "The money was given to Jemmy."

## METHOD

### Research Design

The method used in this study is the Research and Development method (R&D). It is a technique for developing a specific product for teaching English and evaluating its effectiveness as a learning medium in the learning process. As stated by Sugiyono (2010), there are research and development steps in this study.

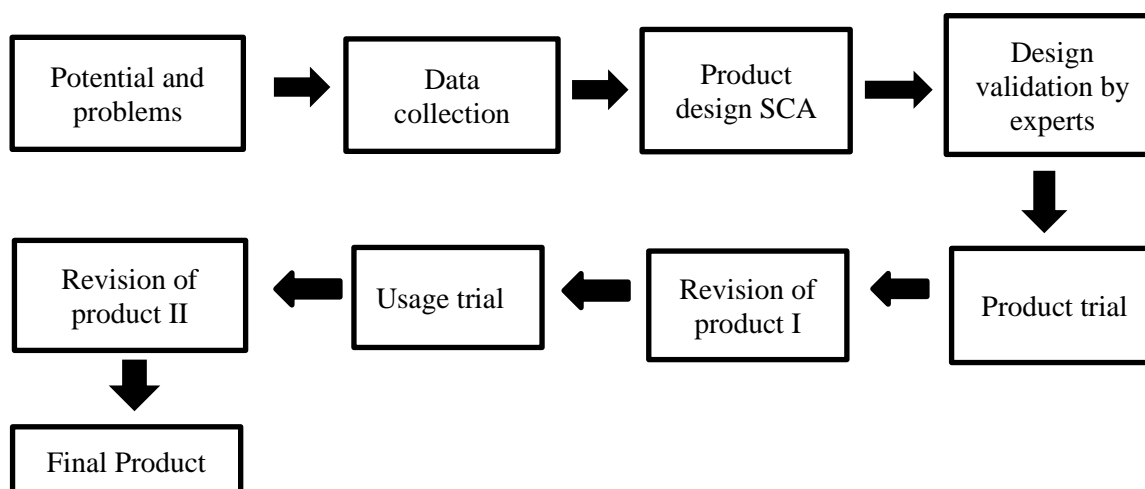


Figure 1 Steps of Research and Development in Sugiyono's Research and Development Design (2010)

### Research Object

The object of this study is mobile learning media created by Smart Apps Creators as a learning media to learn English grammar in specification on the passive voice material. This application was validated by some experts and tested at SMA N 09 Semarang.

### Research Setting

This research was carried out in Class XI IPS-4 of SMA N 09 Semarang. One of the primary reasons for selecting this school was the presence of a few teachers who used Android-based mobile learning media in the English learning process. On the other hand, they used some

traditional methods to teach their students textbook-based material. This school, on the other hand, already has an internet connection that can be used in the English learning process. This study was conducted during the second academic year of 2020/2021.

### **Data Collection**

The questionnaire method was used for data collection in this study. The questionnaires were used to elicit a wide range of information from experts and 20 students. The questionnaires were provided to assist students in finding answers, thoughts, or opinions. In this study, the questionnaire method was used to collect data. In addition, expert validation was provided for the questionnaire. We used a questionnaire with ten questions about the MLM media learning process and some aspects of expert validation in this article. Students were required to respond with a checklist. As a result, the survey results are statistically quantitatively analyzed using SPSS as a part of a descriptive statistical analysis.

### **Definition of Potential and Problems**

In this case, we analyzed the problem and discussed the success of the application of MLM in SMA N 09 Semarang, which showed that the English teacher did not use the high-tech multimedia to learn and teach. English teachers were also restricted to using traditional media, such as PowerPoint presentations. Teachers use PowerPoint and other traditional media to teach their students, but students are not interested in learning English. As a result, we assisted the other teacher and student in providing the simplest way to learn English grammar using modern media for teaching and learning English, specifically English grammar, so they could learn English. Based on these concerns, this study was designed to assess the efficacy of MLM in teaching and learning English grammar using the Smart Apps Creator process. The application product is assumed to be the best solution for learning and teaching passive voice material.

### **Product Design of SAC (Smart Apps Creator)**

During this stage, the product was developing learning media for teaching and learning English grammar using an Android mobile device. The material was delivered via Android-based mobile learning, which included indicators of competency achievement, such as (1) the students' ability to recognize patterns in English grammar and build specific things, (2) The students can know and understand how to use a pattern in a time frame that we describe, such as the past, future, or now, (3) The students can also present and submit the results of the exercise on that application.

### **Design Validation by Expert**

In order to review and improve the consistency of the product, we have sent the product

to an evaluation and validation expert. The expert shall include the following persons:

- a. A subject matter expert reviewed and validated the matter in the development of this study's android-based mobile learning media.
- b. An expert on the product was in charge of reviewing and validating an Android platform based on learning media (Smart Apps Creator).

### **Product Trial**

We took twenty students from SMA N 09 Semarang's eleventh grade to use a basic random sampling technique. The simple random sampling technique is a sampling technique used by representatives of the population that is conducted randomly with no regard for strata in the population (Sugiyono, 2010). Students completed a student perspective questionnaire on developing MLM in the learning and teaching passive voice material.

### **Revision of Product I**

At this stage, expert media and teachers were examined and assessed the product's flaws. Then we made improvements to the product. After the author updated the product, it was returned to the experts for confirmation and re-arrangement based on the revision's outcome. This procedure was repeated until the expert gave his or her approval to the product.

### **Usage Trial**

At this point, we offered a test of the product's efficacy. All students in Class XI IPS-4 of SMAN 9 Semarang would be focused on this step. The evaluation was carried out using MLM, which was built using the results of the student learning assessment. Data were analyzed to determine the effectiveness of MLM in teaching and learning English grammar.

### **Revision of Product II**

At this point, the revision was carried out based on the information provided by the creation of this mobile application and the student response. After updating the product, it was returned to the experts for confirmation and re-arrangement based on the revision's outcome. This procedure was repeated until the experts provided confirmation.

### **Final Product**

Experts obtained and reviewed the final project, which included the findings of the product trial and the use trial of students in the learning process. The product would be capable of replicating and implementing solutions that could be used as learning media for teachers and students.

### **Data Collection Technique**

In this study, questionnaire was used to collect data. The questionnaires were used to

collect information from experts and students. The questionnaires were distributed in order to ascertain the students' responses, opinions, or perceptions. The questionnaire was also subjected to expert validation. We used a ten-question questionnaire about the process of learning using Android-based mobile learning media and some aspects of expert validation in this study. The students and expert validation were required to respond by providing an answer. As a result, using Microsoft Excel and SPSS, the questionnaire results were statistically quantitatively analyzed using descriptive statistical analysis. The mean and percentages were used to summarize the data.

Tests are a series of questions or exercises used to assess an individual's or a group's abilities, skills, intelligence, or talents (Arikunto, 2010). A test was a tool used to collect data for research and to determine the students' achievement or score during the teaching process. A test is typically used at the beginning and end of the learning process to determine the students' understanding of the material before and after the teacher's presentation of the material. We collected data for this study using a pre-test and a post-test. A pre-test was given to both experimental and control groups before the material was given to the students, and it was used to determine the students' prior knowledge survey. In addition, the post-test was given to both the experimental and control groups. It was given to the experimental group after the learning process using MLM to determine the extent to which their mastery level of passive voice. It used the learning media commonly used by the teacher in the control class. To measure and analyze the data, we used the Independent Sample T-test.

## **RESEARCH FINDINGS AND DISCUSSION**

### **Definition of Potential and Problems**

To identify the problem, we conducted the classroom observation to gain a better understanding of the actual teaching learning process in the Class XI IPS-4 of SMAN 09 Semarang. It is critical to begin research or analysis in order to obtain preliminary development information. This procedure included a review of the literature as well as observation.

Related with the pre-observation that we had been conducted at Class XI IPS-4 of SMA N 09 Semarang, in the process of learning English, teachers tended to use conventional media such as PowerPoint, paper, even textbook. Regarding this condition, the use of mobile learning media to learn English grammar seems more appropriate and meaningful to the subject of study. Teachers may use the smart phones of their students as their main object and components to accelerate the learning process.



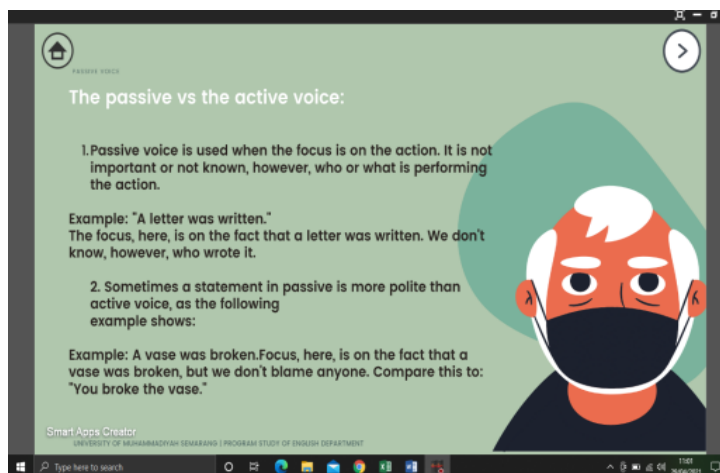
## Product Design of MLM

The next step was to create MLM product. We decided on the basic competencies and indicators, created the material, and created MLM concept then we chose the passive voice material that would be the first thing that people saw in the mobile learning media design. The MLM product was created using Smart App Creators. We created the background and other component images that relate to the material illustrated on MLM. It took at least two weeks for developing the MLM product.



Figure 2 The Main Menu of MLM

Figure 2 shows the main menu designs are depicted from the use of MLM, which includes the materials based on the common information of passive voice material. The available materials and exercises can be accessed offline and independently, allowing students to learn the materials even if they do not have access to the Internet. The design of the exercises with answer keys is expected to encourage students to learn independently and more interactively. After they finish the task, the answer key will appear. Each material's task is presented in every section.



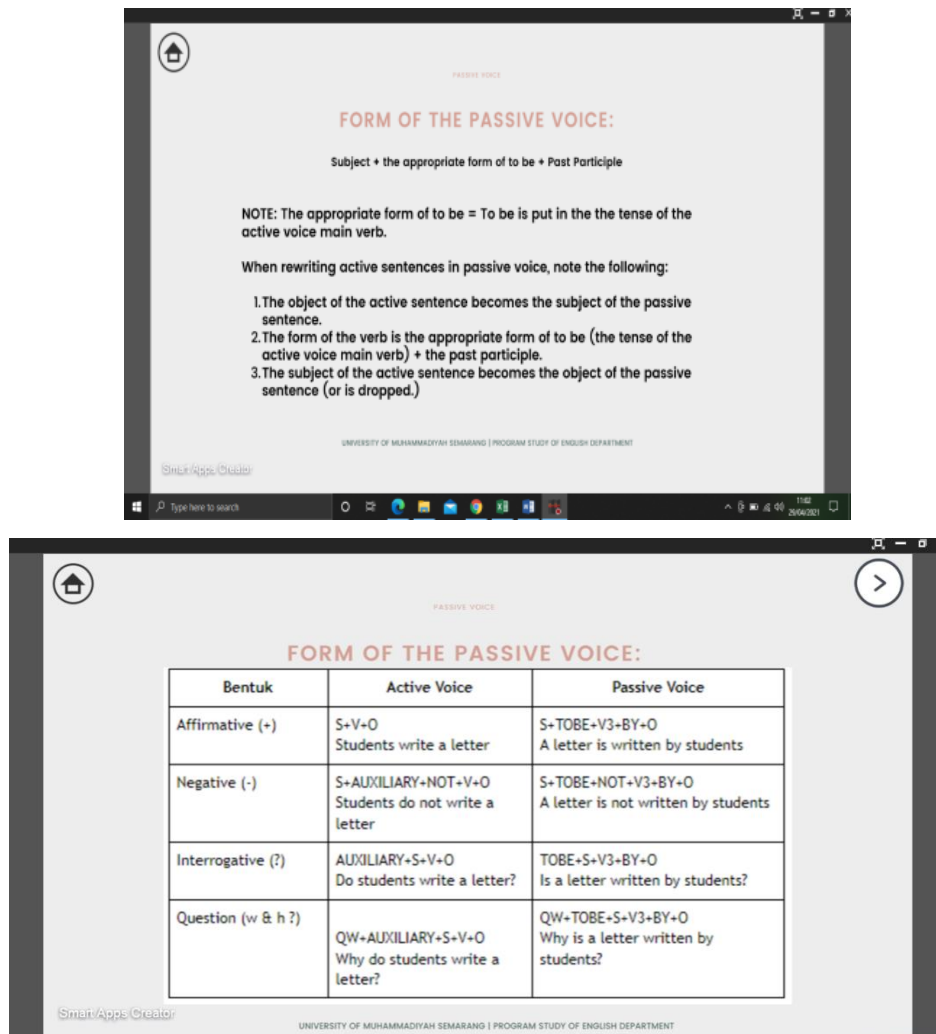


Figure 3 Introductory Material of MLM

The available materials and all the components of this application can be accessed offline and independently, and it allows students to learn the materials even if they don't have access to the Internet.



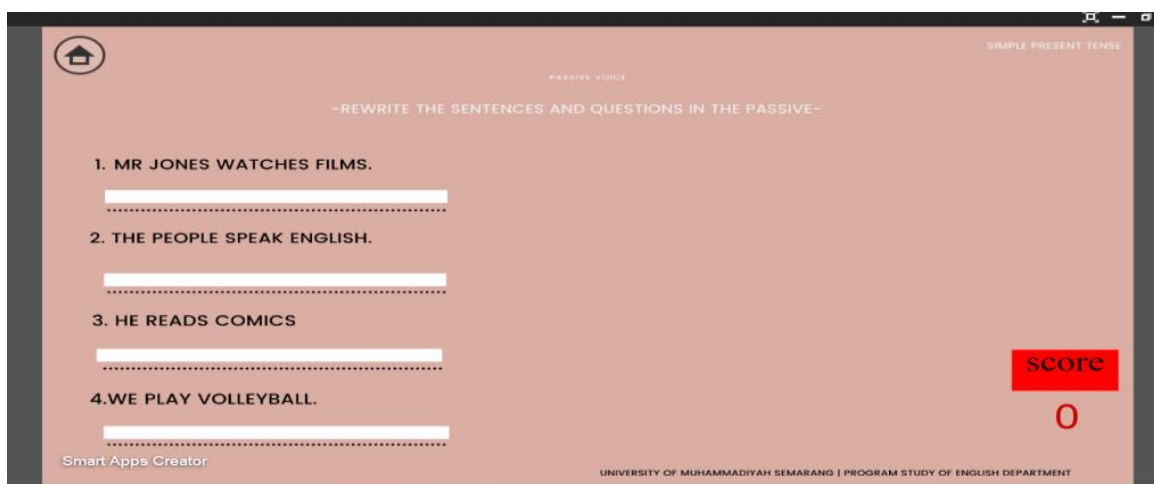
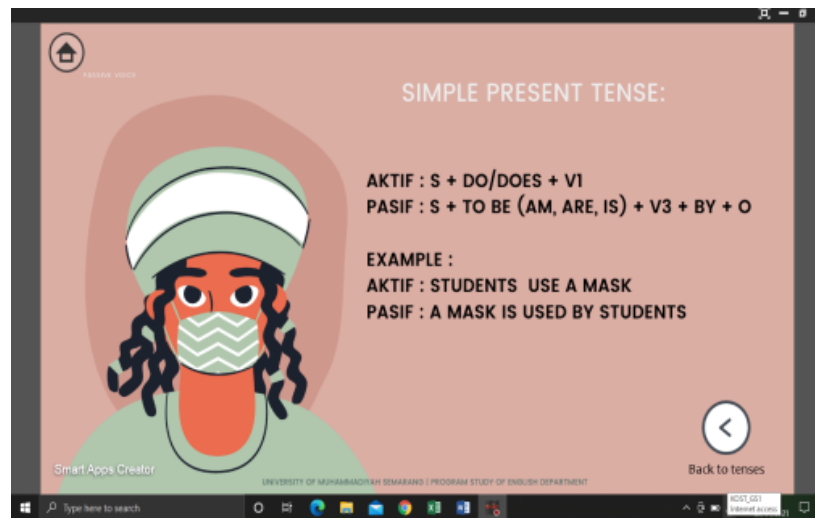


Figure 4 Tenses and Exercise of MLM

Figure 4 shows the tenses design in each section of the material passive voice followed by some exercises. It is expected that this will determine the students' level of ability after they understand each material taught and encourage students to learn independently and more interactively. After completing the task, students receive a score for each question in this section. In this section of the game, students will access the link clipped on the board and the Instagram filter which they can use as a game and improve their knowledge after learning passive voice material.

### Design Validation by Expert

After finishing the MLM product, we delivered it to the material and media expert. Before the expert validated the media and materials, we used the developed questionnaire to understand the expert validation results. So, for material validation, we chose an English teacher from SMA N 09 Semarang as an expert material. The expert material was supposed to respond to eight questions. The work was completed based on the expert's advice and suggestions for how to

use the product.

We divided the expert of media validation criteria into two categories: criteria for teaching expert of material and criteria for teaching expert of media layout. Before presenting the results of media validation to the class, we revised them with the experts. Following that, we gathered the questionnaire that the experts had reviewed.

We also created validation sheets for expert media using a questionnaire to determine the validity of this media. The expert media had to answer eight questions on the validation sheets. The media expert was a lecturer from the Universitas Muhammadiyah Semarang. The validation expert media data are shown in Table 1.

**Table 1 Recapitulation of Validation Expert of MLM**

Component	Validation expert of media and material		average	max score
	1	2		
Content	38	38	38	80
Language	39	39	39.5	80
Design	40	38	39	80

MLM has been developed in the 'Very Good' category. These categories conclude that MLM can be used with minor changes. Revisions have been made by the validators:

- a. we may provide some additional content, such as video learning, based on expert validation of the material, which can be the conclusion of previously taught material.
- b. we may provide an addition of identity from the researcher in this media learning and provide an addition of the university's icon or logo based on expert validation of media.

**Revision of Product 1**

The results of expert data validation revealed that there were still a number of MLM products that needed to be completed. Some aspects, such as the university's icon, required several corrections so that the identity could be better understood. The goal of the product revision was to make the media more effective, efficient, and appealing. The validators' comments and suggestions are then described as follows:

- a. there are some corrections to make this application perfect for the media that includes all of the tools over there, such as a clip on the last slide of media giving the identity of the writer;
- b. another issue is the ideal areas of the questionnaire where certain parts could not be moved or applied;
- c. to engage students, the expert recommends that learning video is included;
- d. add animation in the material application. The application contains material and exercises and some conclusions based on passive voice material used in a video animation.

### **Product Trial**

We established a tried-out to discover the product's elegance. The testing of this media was divided into two phases: small group testing and field testing (experimental class). We used a questionnaire for students to collect data, but in this case, we only collected data into one group. In the questionnaire, students answered ten questions about their experiences with MLM in learning passive voice material.

In this section, in order to obtain the data, we asked 40 respondents to provide an evaluation based on a questionnaire related to the product's quality. The trial data resulted in a 'good' accumulated average of 73.3 % in the category. It was discovered that the students (40 respondents) agreed that MLM could assist students in the learning process of passive voice material.

### **Final Product**

After completing the revisions, this product was ready to be used as a learning medium. Based on the percentage of scores obtained from the questionnaire on usage trial or field trial (73.3%), it was determined that MLM media was a 'good' category and could be used in the learning process. This media was also intriguing because it could stir the students' interest in learning. Finally, the product was worthy and feasible to be used as mobile learning media for Android and Windows.

The results of MLM's development are Application Package File (APK) forms, in addition to being opened on Windows on any mobile phone with Android base or Windows. In addition, it only needs a memory capacity of 65.1 MB on the phone or computer, so students or the user can easily install it. MLM is like a PowerPoint but it is more interactive and easier to navigate. The media can also be used for loading video, audio, pictures and animations. In addition, MLM has provided students with exercises and feedback.

In the English learning process, this research applied the development of MLM. In other

words, students can also install it on their computer devices using Windows. The objective of using Androids was to help students learn through a mobile phone application.

This media has been developed and deserves to be worthy and used in the learning process. It is consistent with the validation testing experts and the perception of MLM by students.

### **The Effectiveness of Mobile Learning Media**

The data analysis of students' pre-test and post-test results was described using SPSS via normality T-Test and descriptive statistics in this section. This study employed only one class that we used as the experimental group and control group. The experimental section received the learning instructions precisely before using MLM, and we can see how far their knowledge of passive voice material has progressed. However, the control group received the outcome of how far their knowledge of passive voice material had progressed after using MLM.

The material in this study discussed passive voice material. During the research, the two groups had to go through some phases: first, there was a pre-test for the experimental group before beginning the learning process of passive voice material, this part would be concluded how far they know about passive voice material in the teaching process of English, and then for the result of the control group, the test was given after they learned what passive voice is with the help of MLM in order to realize and know the grades of knowledge from the control group.

The data from tests and questionnaires were used in this study. The test was divided into two parts: the experimental and control groups. The data were analyzed to determine the efficacy of MLM in teaching and learning passive voice material. We compared the results before and after the test was administered during the learning process.

**Table 2 The Data Result of Descriptive Statistic**

Descriptive Statistics							
	N	Minimum	Maximum	Sum	Mean	Std. Deviation	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
pre test	20	35	70	1135	56.75	2.215	9.904
post test	20	75	95	1690	84.50	1.491	6.669
Valid N (listwise)	20						

The data score of the pre-test and post-test in this class was valid, as shown in Table 2. It was demonstrated by the pre-test and post-test value variable, with the number of respondents being 20. The experimental and control groups had a mean pre-test value of 56.75 and a mean post-test value of 84.50. In both the experimental and control groups, the minimum pre-test score was 35, and the minimum post-test score was 75. The maximum pre-test score in experimental and control groups was 70, while the maximum post-test value was 95. The result of standard deviation pre-test and post-test value in experimental and control groups showed 9.904 and 6.669.

Based on the data presented above, it is concluded that the learning process using MLM had a higher average value, indicating that students were more familiar with the material before attempting to answer the question using MLM. It was also discovered that there was a significant difference between the students in the experimental and control groups. It was also supported by the results of students' exercises after the teacher explained the material when they used it before and after MLM.

The students' post-test results in the experimental and control groups could be indicated by their understanding of the important things to know and remember the form that we used in passive voice material. Most students understand that the grammatical subject expresses the theme or patient of the main verb, that is, the person or thing that undergoes the action or changes its state.

At this point, we used the T-test to compare the pre-test and post-test results in the experimental and control groups. The paired sample T-test was used to determine whether the hypothesis would be accepted or rejected based on the data as shown in table 3.

**Table 3 The Result of Paired Sample T-test**

		95% Confidence Interval of the Difference		T	DF	Sig. (2-tailed)
		Lower	Upper			
Pair	PRE TEST	-		-		
1	- POST TEST	32.4593 0	-23.04070	12.33 3	19	.000

The effectiveness of MLM can be seen in table 3 based on the results of the Paired Sample Test. Ho meant that there was no difference in mean between pre-test and post-test results or

that MLM had no effect on the teaching process.  $H_a$  meant that there was a difference in the mean between the pre-test and post-test results, or that there was an effect of MLM on the teaching process. To determine the effectiveness of the media, we displayed the significant value (sig.) of the SPSS output: if the significant value (2-tailed)  $< 0.05$ ,  $H_0$  was rejected and  $H_a$  was accepted; however, if the significant value (2-tailed)  $> 0.05$ ,  $H_0$  was accepted and  $H_a$  was rejected.

Based on the data table above, it is concluded that the significant value (2-tailed) in the experimental and control groups was equal to  $0.000 < 0.05$ , implying that  $H_0$  was rejected and  $H_a$  was accepted. The paired sample T-test data show that there was a difference in mean between the pre-test and post-test results. It implied that MLM has an impact on the learning process.

To discuss the effectiveness of MLM, we used the normality test, descriptive statistic, and paired sample T-test to compare the pre-test and post-test results in the experimental and control groups for determining the score minimum, maximum, standard deviation, and significant value (sig.) in the paired sample T-test result.

Based on the research findings, we obtained the result of a paired sample T-test that the significant value (2-tailed) in the experimental group was equal to  $0.000 < 0.05$ , while it was equal to  $0.000 < 0.05$  in the control group. That is,  $H_0$  was rejected while  $H_a$  was accepted. The paired sample T-test results explained how MLM influenced students' learning. It was also useful in the learning process.

Furthermore, the average pre-test score at the group was calculated to be 56.75. The post-test average score for the experimental and control groups was 84.50. We discovered that the post-test score was higher than the pre-test score before the students were given the material using MLM. We also obtained the difference in means between the pre-test and post-test scores in the control group, which was 27.75.

There was a significant difference between the students who were taught before using MLM and the students who were taught after using MLM in the two groups of research that we examined at eleventh-grade students. It could be demonstrated using the previously clarified mean of the pre-test and post-test results.

As a result, we concluded that there was a significant difference in significance between students who were taught before using MLM in the learning process and students who were taught after using MLM in the learning process.

The questionnaire in this study is composed of a media expert, a material expert, and



students. The subject of this research is Android and Windows-based learning media created with the Smart Apps Creator application to develop learning media appropriate for students' circumstances. According to Sung et al. (2016), mobile phone technology has a great potential to support the students' activities in the teaching process, because learning media-based technology can increase student interest in the learning process and can increase the effectiveness of the learning process. Significant differences in the experimental group could also be seen during the teaching process before the students were given the material using MLM. These significant differences could be seen not only in the pre-test and post-test results but also in the students' eagerness to learn the materials.

Furthermore, the results above led to the conclusion that learning through interactive media increases students' interest in the learning process more than traditional teaching methods. The result of the score when we gave the exercises and some questions on the learning process also shows the students' understanding. According to Muzayyanna Zatulifa et al., (2018) learning media using mobile technology can be an alternative in the learning process because they are flexible and allow students to learn anywhere and at any time. The MLM was also simple to implement in the learning process because students did not have to wait for the teacher to explain the material (Muhfiyanti et al., 2021). This media is an application with complicated features such as a picture, video, audio, exercises that can be used to view the result of a score automatically, and many icons that students can operate according to their needs. As a result, this media is good and very useful for assisting eleventh-grade students with the teaching process with passive voice material. We concluded that using MLM to teach passive voice material had a significant effect, indicating that this media was effective for use in the teaching process.

Based on the previous studies, we can conclude that their research is about mobile technology, which can be used as an alternative in the learning process because it is flexible and allows students to learn at any time and from any location. We concluded that using MLM to teach passive voice material had a significant impact, indicating that this medium was influential in the teaching process.

### **The Students' Perception in Utilizing MLM**

Using MLM, we also discovered the perceptions of Class XI IPS-4 students during the teaching process in this study. We distributed the questionnaire to students in this class in order to present the students' perceptions of using Android-based MLM. This questionnaire was distributed after the students used MLM in the passive voice material teaching process. Then,

we analyzed the data obtained through a questionnaire. The results of the questionnaires are displayed in Table 4.

**Table 4 Data Result of Questionnaire in Experimental and Control Groups**

NO	Statement	Mean	Category
1.	Passive Voce MLM as a learning media can aid students in their learning process.	3.1	Good
2.	MLM When used in learning processes is more effective	2.98	Good
3.	With MLM students can be more autonomous in their learning process.	3.05	Good
4.	The use of MLM can increase students' enthusiasm for learning.	2.83	Good
5.	In understanding the materials, MLM can improve the students' response.	3.03	Good
6.	The process of learning is fresher because new learning media are used.	3	Good
7.	When using MLM, learning is more effective than using conventional learning media (text book or PowerPoint)	2.83	Good
8.	The use of MLM can promote student interaction.	2.9	Good
9.	MLM is more authentic than conventional ones. (Textbook or PowerPoint)	2.88	Good
10.	MLM is accessible more than conventional media (PowerPoint or text-book).	2.75	Good

The data analysis showed that most participants agreed with the use of MLM in the learning process, as a result of student insights into how the learning process is carried out using MLM.

The result of students' perceptions regarding the learning media using MLM that is we can conclude that from the experimental and control groups trial or the operational field trial. It showed that the percentage score is 73,3 % that indicated in the 'good' category from the 40 students.

According to the students' perspectives, we concluded that students require the development of learning media that can increase students' motivation and improve learning effectiveness. Because Android and smartphones have significantly impacted education, teachers could develop the Android as a learning media with those criteria being smartphones. Smartphones are one of the hardware that could be developed as learning media (Mardiana & Kuswanto, 2017).

## CONCLUSION

MLM was effective in teaching passive voice. This study concluded that using MLM for teaching passive voice was valid. Furthermore, the media and material were valid. The final product was based on criteria for evaluating teaching media. MLM was classified as effective because the post-test results were higher than the pre-test results. MLM assisted the learning process. According to the students' perceptions, the teaching process using MLM was effective for them and could increase their learning activities. Furthermore, in a field trial, this media received positive student responses.

The MLM was a viable option for English teaching passive versus active material. The results of expert media and expert material demonstrated that the product of developed learning media in this study was also recommended for teaching English grammar. The effectiveness of this medium could also be seen in the post-test results when using passive voice. MLM was a good way to encourage students to actively participate in the classroom. The majority of students thought the MLM learning process was amusing and interesting. According to the students' perspectives, we concluded that they require the development of learning media that can increase students' motivation and improve learning effectiveness.

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