

## **THE EFFECTIVENESS OF MULTIMEDIA IN TEACHING SIMPLE PRESENT TENSE FOR THE JUNIOR HIGH SCHOOL**

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**Abstract.** The use of multimedia technologies in education has enabled teachers to simulate final outcomes and assist students in applying knowledge learned from textbooks, thereby compensating for the deficiency of traditional teaching methods. It is important to examine how effective the technologies are in practical use. The purpose of the study was to describe the implementation of interactive multimedia and to describe the level of defiance of the eighth grade students of SMP Muhammadiyah 1 Surakarta in learning of Simple Present Tense. The study utilized a teaching experiment with a non-equivalent pretest-posttest experimental group design to test and discuss students' professional cognition, operating skill cognition, and level of learning achievement during the learning process. No significant differences emerged between the groups in regards to professional cognition or operation skills cognition. However, a significant difference in learning achievement was noted, indicating that the treatment with multimedia produced greater achievement than with traditional learning methods. Results are explained in detail and recommendations for further research provided. The result showed that teaching learning process by using multimedia is not only helping teacher in delivering the target language but also motivating the students in learning where it provides audio and visual materials that make the students attract to the lesson and give more attention to it.

Key Words: Learning, application, Multimedia

## **INTRODUCTION**

### **Multimedia**

Multimedia is a term that familiar in nowadays live, as it holds important role in our daily live. Multimedia is defined as any combination of text, graphic, sound, video and animation. Multimedia can be delivered to user via electronic or digital manipulated means. Multimedia is used in almost aspects of human's life, with the development of technology, it makes multimedia necessary to be applied effectively so multimedia could develop and become easier to use. The forms were developing according to human needs and thus multimedia was applied in our daily life from business, health, house, public place, and in education as well. Multimedia may be defined in multiple ways, depending upon one's perspective. According to Gilakjani (2012) typical definitions of multimedia include the following: (1) multimedia is the use of multiple forms of media in a presentation; (2) multimedia is an information in the form of graphics, audio, video, or movies. A multimedia document contains a media element other than plain text; (3) multimedia comprises a computer program that includes text along

with at least one of the following: audio or sophisticated sound, music, video, photographs, 3-D graphics, animation, or high resolution graphics. Other definition stated by Susikaran (2017), he stated that multimedia is the exciting combination of computer hardware and software that allows people to integrate video, animation, audio, graphics, and text resources to develop effective presentations on an affordable desktop computer. Susanto (2017) stated that media can help students to improve English skill. In his research teaching writing using word games; the case study of junior high schools in Semarang, Central Java, Indonesia. In line to this statement, Thamarana (2016) stated that multimedia is the combination of different content forms. It includes a combination of text, audio, still images, animation, video, or interactivity content forms. It is usually recorded and played, displayed, or accessed by information content processing devices, as computerized and electronic devices, but can also be part of a live performance. From the statements above, it can be concluded that multimedia is a form of communication that combines different content forms such as text, audio, image, animations, or video into a single presentation.

### **Multimedia in Education**

Technology continues to change the world around us. The academic world is no exception. Students and teachers everywhere are discovering exciting and innovative ways to make learning more dynamic, longer lasting, and more applicable to the world outside the classroom.

Regarding education, multimedia applications can be applied creatively and reflectively, and through the 'learning to learn' concept, students can be taught how to determine and apply specific strategies to achieve success in every subject. The application of multimedia technology in the learning process, not only provides a concrete experience, but also help the students integrate the experience. Multimedia technology empowers the educational process by means of increased interaction between teachers and the students. In the course of practice, the use of multimedia technology application can help students to understand in depth the material being taught, as well as overcoming the limitations of space, time and equipment.

Several studies show that computer-based multimedia can improve learning and retention of material presented during a class session or individual study period, as compared to traditional lectures or study materials that do not use multimedia. That's true, it cannot be denied that multimedia plays an important role in the world of education. Thamarana (2016) supported that statement., he stated that the use of classroom media in the teaching learning process have three impact points, they are: (a) to raise interest level students appreciate (and often expect) a variety of media. (b) to enhance understanding rich media materials boost student comprehension of complex topics, especially dynamic processes that unfold over time. (c) to increase memorability – rich media materials lead to better encoding and easier retrieval Relationship between Multimedia and Language Teaching. The study did by Mayora (2006) also proved that the use of multimedia technology in the classroom provide a positive impact for both of teacher and students, in which the use multimedia: (a) allows students to work individually at a computer station, at their own pace, and according to their own needs; (b) helps teachers to deal more effectively with a large group of students; (c) makes the introduction and presentation of content more dynamic and attractive for students; (d) increases student motivation due to the interactive nature of the activities; (e) trains students to self-monitor and self-assess their progress, which promotes autonomous learning; (f) promotes a task-based approach to learning; (g) allows students to experience real-life and communicatively meaningful language situations and contexts; and (h) introduces a variety of print, audio, and visual materials that match different student learning styles and preferences. From those such studies above can be concluded that the use of multimedia not only helps the

teacher in delivering the lesson, but it also can motivate the students to learn. The use of multimedia also gives real-life experience where it serves the audio-visual material to the learner. However, in applying of multimedia as a media learning, there are some norms that has been considered. Gunawardhana and Palaniappan (2017) proposed some norms for multimedia use in education, they are: (1) it should serve to strengthen students' learning; (2) it should help provide a good learning environment. Educational elements in multimedia should be accessible in various presentation forms; (3) it should help to improve the logical thinking skills of users. Learners need to analyse by themselves what they have learned and come to a proper decision about it; (4) it should be developed to motivate users. They should also be attractive and interactive

### **Educational Advantages and disadvantages in Using Multimedia**

Multimedia in the classroom has evolved rapidly with a progression from audio cassettes to internet sites in classroom learning. Some examples of multimedia in the classroom include the use of video, the creation of video by students, the creation of spreadsheets or the development of a website displaying student work. There are many benefits that can be taken from using multimedia in the classroom. Students who learned from materials containing both text and graphics produced 55 percent to 100 percent more accurate solutions to problems. The use of images, along with words, diminishes the overwhelming nature of text and helps the student to manage the cognitive load, which increases retention. Specifically, graphics are found to support retention because important elements are focused on via placement, layout and colour. Activation of prior knowledge is engaged quickly with visual analogy, and mental models are created easily as diagrams can enhance understanding of how a concept works. Additionally, learning is made easier because simulations allow students to visualize real-life situations, and motivation is increased as students are able to see the relevance of skills. Students who have access in their home to new methods and tools of education through computers, interactive learning, etc. may have also different and more potential to absorb those technologies while used in the school educational system. Teaching methods is the subject of many research papers in this field in trying to evaluate methods to improve students' ability to be interactively be involved in the class. This seems to be particularly necessary in the current Internet, wireless, etc. connectivity environment where students can be distracted through having or using those tools. Through providing the ability for students to use those tools in their education besides using them for entertainment or social activities, this may have positive impact on education (Nasir et al, 2013). But, behind the advantages, there are some disadvantages in using multimedia in the classroom, as Nayef (2019) stated as followed: (1) there are limited social interaction since students often engage peers in online discussions and interact with teachers via e-mail, this doesn't replicate the face-to-face experiences in a traditional classroom; (2) there are lack of Structure for undisciplined or unmotivated students. Besides that, production of multimedia is more expensive than others because it is made up of more than one medium. Production of multimedia requires an electronic device, which may be relatively expensive. Multimedia requires electricity to run, which adds to the cost of its use.

### **Multimedia in Teaching English**

Teaching and learning grammar tended to be regarded as a boring subject. There is a view that the teaching of grammar, teachers only explain the rules while the students listening, memorizing rules and doing exercises English. Such a view, however is not entirely wrong since teachers still concerned with the use of conventional methods such as lectures and then giving questions during in the teaching grammar. The problem like that will not arise if the teacher uses an interesting media in delivering the lessons. A comfort learning condition and

it is supported by technology- based learning media is expected to create a conducive learning atmosphere. Media is one of the important things in teaching English, in this case grammar. Many kinds of media used in teaching learning English like pictures, slide projector, audio cassette, charts and so on. Those all used to make the students easier in understanding the lesson and help the teacher in delivering the material. With the development of technology, multimedia is increasingly accepted as a means of English language instruction. This trend features the use of audio, visual, and animation effects in the English language teaching classrooms. More English teachers state that teaching English with multimedia makes the English class more active than the teacher-centered model. In comparison, in traditional English classrooms, instructors have to spend time on writing the vital language points and important information on the chalkboard, whereas in the multimedia classrooms, the teacher can use the button and keyboard to show significant content in a few seconds as long as he or she is familiar with the operation of the multimedia

### **The Previous Study**

The previous study did by Rajendra and Sudana (2018) proved that multimedia give the contribution in the teaching learning process. The study showed that the experimental group gained more than the control group in which mean of the experimental group was 77.59, whereas mean of the control group was 70.55. There was any significant difference in the achievement scores (gains) of both groups. This showed the positive impact of multimedia teaching on students' academic achievement. Teopilus et al (2015) in the study entitle "The effect of using computer base timeline media on leaners' mastery of English tenses" indicated that there was any significant difference between the subjects' pre-test scores and their post-test scores. This proved that the timeline media developed in this research, to some extent, have effectively increased the learners' knowledge of the English tenses taught. The results of the questionnaire analysis also indicated the positive responses of these teachers after using the media in their classes. They gave very good responses (43%) and good responses (57%) to the questions asking about the benefit, very good responses (71%) and good responses (29%) to the layout of the pictures and animation, very good responses (71%) and good responses (29%) to native speaker's voice, very good responses (29%) and good responses (71%) to students' interest, very good responses (57%) and good responses (43%) to the ease of operating the media, and very good responses (57%) and good responses (43%) to the role of the media to enhance their students' understanding of the English Tense(s). From those studies showed that multimedia gave a positive impact in the English teaching learning process. can enhance the learners' understanding of the English Tenses presented. This is proved by the t-test calculation, which shows a significant increase from the pre-test scores to the post-test scores.

### **Method**

This was a comparison study, and it used a quasi experimental designs test, in which the researchers conducted experiments and different treatments into two groups of subjects. The first experimental group was assigned by Experimental Group 1 (EG1) who is given treatment by using an interactive multimedia, while the second experimental group was assigned by Experimental Group 2 (EG2), who is given treatment by using the conventional methods ( the use of handout). The learning process was carried out as many as 10 x meetings, with a learning time 60 minutes in each.(8x treatment + 2 pretest and posttest). The approach used in this study was a quantitative approach, it means that all information or data realized in the form of numbers. The instruments used in this study were writing test and questionnaire. Data were analysed statistically using t-test, then the result was described.

## Subject

The participants for the study were students of the eighth grades of SMP Muhammadiyah 1 Surakarta, which is located at Jalan Flores No 1 Kp Baru Pasar Kliwon, Surakarta, Central Java. There were 50 participants who take a part in the study, those were 25 students of class VIII A , and 25 students of class VIII B.

## Instruments

To support this study, some test sheets that contained of the simple present tense materials were given. The interactive multimedia applied in this study is application of Microsoft Power Point which is packaged on a CD. The supporting material like a handout included as well, The handout included a description and explanation of the material being taught.

## Objective of the Study

The focus of the study is related to the effectiveness of interactive multimedia as a medium in learning simple present tense, and the problems are formulated as follows: (1) is there any significant different between the students' understanding simple present tense who are taught by using interactive multimedia and those who are taught conventionally?; (2) what contribution can interactive multimedia give to the students' understanding of simple present tense?

## Procedure

The study was conducted in three phases like, pre-testing, experimentation and post-testing. In the first phase, the researchers administered the achievement test in English grammar as the pretest on the students of both EG1 and EG2. In the second phase, the researchers implemented the developed multimedia package on EG1 while the EG2 were taught the same four topics by their English language teacher for the treatment that lasted for 60 minutes in each session using traditional method. After the treatment was over, the researcher administered the achievement test as post-test on the students of both the EG in knowing the effectiveness of the developed multimedia. To know the achievement for both of groups, then all the data analyzed statistically. and described.

## DATA

The treatment results of the two EGs are presented in table 1 below:

Table 1. Performance of both groups in pre-test and post-test

	Variation Sources	EG1	EG2
<b>Pre-test</b>	Total	1360	1416
	Mean	54.40	56.64
	Variance	66.6667	140.9067
	Standard Deviation	8.16	11.87
<b>Post-test</b>	Total	2076	1824
	Mean	83.04	72.96
	Variance	65.7067	109.7067
	Standard Deviation	8.11	10.47

The academic achievements of the two EGs are presented in figure 1 below:

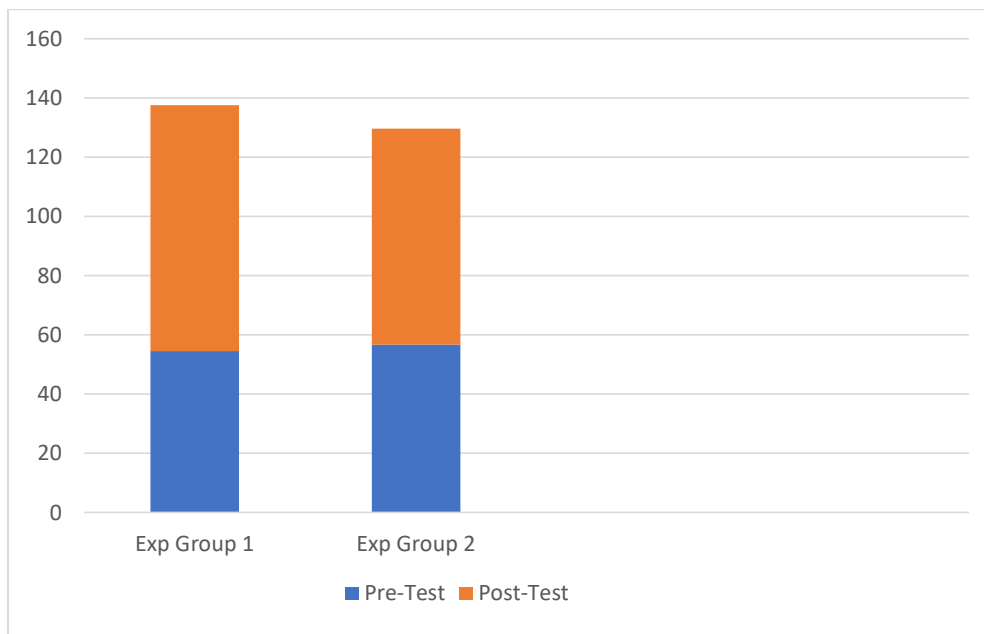


Figure 1. Academic achievement of the EG1 and EG2

The results of the two post-test means were tested for their significance. The difference test results of the two post-test meaning of the EG1 and EG2 stated that  $t \text{ count} = 3.805 > t \text{ table} = 1.68$ ,  $\alpha = 0,05$  which is presented in Figure 2 below:

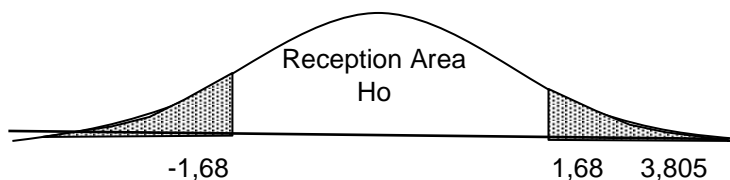


Figure 2. The rejection area of Ho

## FINDING AND DISCUSSION

Based on Table 1 and figure 1, it showed that the comparison between the performance of the EG1 and EG2 before and after treatment. It was obvious that the EG1 gained more than the EG2. From the posttest result can be seen that Mean of the EG1 was 83,04, while Mean of the EG2 was 72,96. There was a significant difference in the achievement scores (gains) of

both groups. This showed that multimedia give the positive impact on students' academic achievement in the teaching of simple present tense. Figure 2 showed the reception area of  $H_0$ , in which  $t$  located on the  $H_0$  ignorance area, it can be concluded that the group of EG1 was better than the EG2 in achievement. Based on the data above, it can be concluded that: (a) there is any significance difference between the student's understanding of the simple present tense when they were taught by using the interactive multimedia-based learning media rather than taught conventionally ( by using the handout) since the results indicated that the EG1 score is higher than the EG2 in where the mean of EG1 was 83.04 while the mean of EG2 was 72.96; (b) the use of interactive multimedia in teaching English indeed give great impacts to the students' understanding of simple present tense. The EG1 showed an improvement in performance and this improvement was statistically significant since the students got better achievement in their simple present tense understanding by using interactive multimedia

## CONCLUSION

Multimedia offer teachers enormous opportunities for making learning and teaching environment meaningful and effective. One of the ultimate goals of multimedia language teaching is to promote students' motivation and learning interest, which can be a practical way to get them involved in the language learning. In the present day, several multimedia applications can use for the purpose of education, such as simulation games, presentation applications, and e-quizzes. A good multimedia learning application can be develop based on cognitive objectives, which are focus on and compare different levels of learning of topics. Multimedia can be used as an efficient learning tool, as it usually helps to increase the motivation of its users and enhance the interaction between the multimedia application and its users. Through this research, it is expected that the teachers always create and do learning innovations by means of learning model that is suitable with the student's condition and ability, so that they will be more motivated and have more interest in the learning process. A certain learning model which is successfully solving the problem in one place, yet is not applicable to other places, is not an innovative one for learning. So, the main factor for innovative learning is novelty and ability to solve learning problems (Sarwi, Supriyadi & Sudarmin, 2013).

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