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The Effectiveness of Adobe Flash Media in Improving the English Language Learning Outcomes of Students in Grade VII at SMP IT YARSI Mataram

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Abstract

The application of media has become a major focus in efforts to improve the effectiveness and quality of learning. Interactive and educational learning media in teaching such as Adobe Flash can increase student interest and motivation to learn. This study aims to examine the effect of using Adobe Flash learning media on English learning outcomes of seventh grade students at IT YARSI Mataram Junior High School. The method used in this research is a quasi-experimental design with a quantitative approach, comparing experimental classes using Adobe Flash with control classes using traditional learning media. The research sample consisted of 50 seventh grade students selected through a purposive sampling technique. The results showed that there was a significant increase in student learning outcomes using Adobe Flash media. At the first session, the students' achievement level was 62,76%, increased to 77,33% at the second session, and reached 80,33% at the third session. Descriptive statistical analysis showed that the mean score of the experimental class (81,61) was higher than that of the control class (67,61). The Mann Whitney test results showed a significant difference between the two classes, indicating that the use of Adobe Flash is effective in improving students' learning outcomes. The conclusion of this study is that Adobe Flash learning media can improve students' interaction, motivation, and learning outcomes in English language learning at SMP IT YARSI Mataram. The findings support the importance of applying interactive technology in the learning process to improve the quality of education.

Keywords: *Adobe Flash; Learning Outcomes; Students SMP IT YARSI Mataram*

Introduction

The use of learning media in the educational process has become a major focus in an effort to improve the effectiveness and quality of learning. This is particularly evident in the context of English language learning at the junior high school level, where it is imperative to engage students' interest and motivation to learn in order to improve learning outcomes. (Khasanah, 2022) research indicates that the use of TikTok as a learning medium has the potential to reduce the percentage of students below the KKM from 50% to 38% in Cycle I, and then to 25% in Cycle II. It can thus be concluded that an increase in

students' learning results is attributable to the fact that learning is more attractive to their interests and motivation.

The initial observations conducted in March 2024 at YARSI Integrated Islamic Junior High School (IT) in Mataram, West Nusa Tenggara, revealed that the predominant teaching method employed was the use of printed media and the delivery of material through the lecture method. This approach was often insufficient to effectively engage students in the learning process. The observation of seventh-grade students revealed that 80% of students expressed a preference for learning through the use of images and videos, while the remaining 20% indicated a preference for traditional approaches, such as listening to teachers and reading books. These data confirm that the role of learning media is very important in engaging and motivating students and enriching their learning experience.

According to (Hadijah et al., 2020), interactive and educational learning media in English language teaching, such as PowerPoint slides, videos, movies, online or traditional games, can support the creation of an effective learning atmosphere that motivates and improves learning outcomes for senior high school students. (Kodrle & Savchenko, 2021) describe the use of digital educational media in foreign language teaching at Kuban State University. The results of the research show that modern media can be effectively used for curriculum purposes and contribute to the develop of foreign language skills as well as general learning skills. The interactive media used combine podcasting, multimedia presentations, digital storytelling, and other Internet-based media. The results of (Tiara et al., 2021) research in Karawang, Indonesia, found that 4 out of 5 grade 8 students liked and were satisfied with the way the teacher delivered material through YouTube videos during the pandemic. They argued that YouTube videos made the material easier to understand.

In this context, the use of interactive media, especially those accessible through computers or laptops, has the potential to capture students' attention. The interest of students in computer technology represents a significant foundation for the advancement of learning materials. The incorporation of computer technology can facilitate more engaging and intriguing learning experiences, which may subsequently enhance students' motivation and interest in learning (Iqromi & Baysha, 2019). In addition to the interactive media previously utilized by researchers, Adobe Flash is a prominent platform for the creation of interactive media, offering a variety of features that facilitate the development of engaging and interactive learning experiences.

Adobe Flash media can be presented in a variety of formats, including animations, videos, educational games, and simulations. These formats are designed to be visually appealing and interactive. The utilization of Adobe Flash enables the presentation of English learning materials in a more dynamic, engaging and accessible manner for students (Wahyuni, 2021). Its flexible nature allows for its use on a variety of devices, including computers, laptops, tablets, and smartphones (Kudadiri, 2023). The application of Adobe Flash media in the context of English language learning at the junior high school (SMP) level has yet to be subjected to a more comprehensive and rigorous investigation.

In light of the aforementioned findings, researchers are interested in conducting a more in-depth examination of the utilization of learning media through the Adobe Flash program in the context of English language learning in class VII of IT YARSI Mataram Junior High School. This study aims to ascertain the impact of Adobe Flash interactive learning media on student learning outcomes and to contribute to the advancement of more efficacious and engaging learning methodologies within the educational milieu. Accordingly, this article will present a comprehensive examination of the implementation of Adobe Flash-based learning media and its impact on students' motivation and learning outcomes.

Method

This study employs a quantitative methodology with a quasi-experimental design, as it contrasts the control group, which did not receive any intervention, with the experimental group, which was subjected to the treatment. However, it is important to note that the sample may still be influenced by a number of other factors. (Osmanović Zajić & Maksimović, 2022) notes, quasi-experimental research in education serves to establish reliable data and determine the causal relationships between educational phenomena through an epistemological-methodological approach. In this study, the independent variable is the use of Adobe Flash, which serves as the influencing variable. The dependent variable is student learning outcomes in English language learning, which is influenced by the aforementioned variable. A posttest-only control design was employed in this study due to the fact that neither the experimental group nor the control group was randomly selected (Krishnan, 2019). The study population consisted of all seventh-grade students at SMP IT Yarsi Mataram in the 2023/2024 academic year, amounting to a total of 50 individuals. Moreover, the research sample was selected through the purposive sampling technique, with the objective of obtaining two classes with an equivalent number of students and the same average score. This resulted in the selection of the VII Al and VII B classes, which constituted the experimental and control groups, respectively. The experimental and control classes were determined through a lottery. Class VII A was designated as the experimental class, while Class VII B was designated as the control class. The hypothesis to be tested is whether there is a difference in learning outcomes between the experimental class, which has been treated with Adobe Flash media, and the control class, which has not been treated with the media.

The data collection techniques through observation, test techniques, and documentation. Observations were made of all devices supporting the learning process including the condition of students, teachers, and learning media used. The test technique was used to collect data on student learning outcomes after treatment during the learning process using Adobe Flash (Sugiyono, 2013). The test was given in the form of multiple-choice questions as many as 20 numbers consisting of four answer choices taken from the material taught to students contained in the English textbook handbook for seventh grade students.

Descriptive data analysis techniques are employed to provide an overview of the extent to which student learning outcomes are achieved in both experimental and control classes (Sugiyono, 2013). The descriptive statistics sought include the presentation of the data in tabular form, the calculation of the mean, the highest and lowest values, and the standard deviation, which is calculated manually from the posttest results in class VII SMP IT YARSI Mataram. The data obtained are presented in Table 1 below for ease of reference

Table 1. Score Classification

Number Score	Letter Score	Predicate
80 – 100	A	Excellent
66 – 79	B	Good
56 – 65	C	Fair
46 – 55	D	Deficient
0 – 45	E	Fail

(Source: Sudijono, 2016)

Inferential statistical analysis was used to test the hypothesis, using Mann-Whitney test to ascertain whether there were differences in the learning outcomes of students in the control class who were instructed using conventional media and those in the experimental class who were taught using Adobe Flash. All of these statistical analyses were conducted with the assistance of SPSS software

Result and Discussion

A. Result

The study was conducted in two classes with the objective of comparing the efficacy of learning through the use of Adobe Flash media with that of learning without the use of such media. This research was conducted over the course of three meetings, with the results obtained through observations of the activities of both teachers and students. At the conclusion of each meeting, both sample classes were administered posttest questions and answer sheets to ascertain the students' learning outcomes.

1. Observation Results of Teacher and Student Activities in Learning

The learning process was observed and documented through the use of Adobe Flash Media, specifically focusing on the Transactional and Interpersonal Text material. In the initial meeting, 13 aspects were observed, while in the subsequent meetings, 12 aspects were observed in each meeting, with an estimated duration of 90 minutes. The learning effectiveness was divided into three sections: the initial activities (approximately 10 minutes), the core activities (approximately 70 minutes), and the final activities (approximately 10 minutes). In this study, however, the observation of teacher activities was focused on the core activities.

Table 2. Teacher Activity Observation Results

No	Aspects observed	Meeting I		Meeting II		Meeting III	
1	Objective Condition	Y	N	Y	N	Y	N
		9	4	10	2	11	1
2	Maximum Score	13		12		12	
3	Achievement Score	9		10		12	
4	Percentage of Achievement Level	69,23%		83,33%		91,66%	

Description:

Y : Activities performed

N : Activities not performed

Table 3. Student Activity Observation Results

No	Aspects observed	Meeting I		Meeting II		Meeting III	
1	Objective Condition	Y	N	Y	N	Y	N
		204	121	232	68	241	59
2	Maximum Score	325		300		300	
3	Achievement Score	204		232		241	
4	Percentage of Achievement Level	62,76%		77,33%		80,33%	

Description:

Y : Number of students performing the activity aspect

N : Number of students who did not do the activity aspect

2. The Impact of Adobe Flash Media

An overview of student learning outcomes on the material obtained descriptive statistical data analysis of both experimental classes using Adobe Flash media-based learning applications and control classes that did not receive treatment. The results are presented in Table 4, while the Table 5 presented the score classification, frequency, distribution, and percentage of post test results

Table 4. Descriptive Statistics on Learning Outcomes of Experimental and Control Class Students

Statistics	Statistics Score	
	Experiment Class	Control Class
Number of samples	26	26
Lowest score	58	47
The highest score	96	89
Average score	81,61	67,61
Standard Deviation	11,96	14,09

Table 5. Score Classification, Frequency Distribution and Percentage of Posttest Results

Score	Predicate Excellent	Letter Score	Statistics Score		Statistics Score	
			Frequency	Percentage	Frequency	Percentage
80 – 100	Good	A	17	65%	6	23%
66 – 79	Fair	B	6	23%	7	27%
56 – 65	Deficient	C	3	12%	5	19%
46 – 55	Fail	D	0	0	8	31%
0 – 45	Predicate	E	0	0	0	0
			26	100	26	100%

3. Hypothesis Test Analysis

In this study, the experimental class is represented by variable X, while the control class is represented by variable Y. As evidenced by the data presented in Table 4, the mean value for the experimental class is greater than that of the control class. Nevertheless, the discrepancy in values does not address the research question until hypothesis testing has been conducted. Subsequent to the completion of the requisite preliminary assessments, namely the normality and homogeneity tests of the posttest data from both classes, hypothesis testing was conducted. The results of the normality test are presented in Table 6 below.

Table 6. Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-wilk		
Class		Statistic	df	Sig.	Statistic	df	Sig.
Students Learning	Class A	.181	26	.027	.0905	26	.021
Outcomes	Class B	.119	26	.200*	.948	26	.029

*This is lower bound of the true significance

a. Lilliefors Significance Correction

Based on the results of the Normality Test, it was found that Class A obtained a Significance value <0.05, so the values were not normally distributed. Meanwhile, class B shows Significance> 0.05, so the data is normally distributed. Furthermore, the results of the homogeneity test in table 7 below.

Table 7. Tests of Homogeneity of Variance

Levene Statistic			df1	df2	Sig.
Student Learning Outcomes	Based on Mean	2.222	1	50	.142
	Based on Median	2.148	1	50	.149
	Based on Median with adjusted df	2.148	1	49.990	.149
	Based on trimmed mean	2.278	1	50	.138

The Homogeneity Test results show that the Significance value > 0.05 so it can be concluded that the data is homogeneous. Because the data obtained were not normally distributed, a nonparametric analysis was performed to determine the difference between the two classes using the Mann Whitney Test (Usman, 2016). The results of the Mann Whitney Test are shown in table 8.

Table 8. Mann Whitney Test

Student Learning Outcome	
Mann-Whitney U	153.000
Wilcoxon W	504.000
Z	-3.390
Asymp Sig. (2-tailed)	.001

B. Discussion

1. Observation Results of Teacher and Student Activities in Learning

A review of the data mentioned on table 2 indicates that the learning process achieved a level of 69.23% in the initial meeting. In the second meeting, the achievement level increased to 83.33%, and in the third meeting it reached 91.66%. This percentage demonstrates a favorable increase in teacher efficacy during the learning process by employing Adobe Flash Media in English courses. This increase can be attributed to the positive relationship between teacher and student interactions in the classroom. In accordance with the findings of (Arbryan, 2018) study, the integration of Macromedia Flash Player in the learning process has been demonstrated to foster a positive correlation with enhanced teaching and learning outcomes. Similarly, research conducted by(Wahyuni et al., 2021) indicates that the utilization of Adobe Flash Media in English language learning through an e-learning system enhances teacher performance activities within the classroom.

Based on this data provided on table 3, it can be concluded that learning with Adobe Flash media shows an increase in the percentage of achievement levels. In the first session, the achievement level was 62.76%, in the second session it increased to 77.33%, and in the third session it reached 80.33%. This percentage shows a positive change in the students' proficiency level during the English learning process using Adobe Flash media. This increase cannot be separated from the role of the teacher, who managed to maximize the use of Adobe Flash media and actively interact with students in the classroom. (Rohmah, 2019) explained that computer-based learning media, developed using Adobe Flash, facilitated semi-interactive learning for the English language skills of tenth grade students. This is in line with the findings of (Syafa et al., 2021), who found that Adobe Flash media in the learning environment can cause "very high" or "perfect" changes in students' learning interest.

2.The Impact of Adobe Flash Media

From the data presented on the table 4, we can see that in the experimental class, the lowest score was 58 and the highest score was 96, with an average score of 81.61 and a standard deviation of 11.96.

While in the control class the lowest score was 47 and the highest score was 89, with an average score of 67.61 and a standard deviation of 14.09. The following is a table of frequency distribution and percentage of learning outcomes of English subjects in class VII students of IT YARSI Mataram Junior High School.

A review of the data in the table 5 indicates that the learning outcomes of students in the experimental group and the control class in English subjects after the posttest are as follows:

a. The experimental group's posttest results were 17 students (65%) in the excellent category, 6 students (23%) in the good category, and 3 students (12%) in the sufficient category.
b. The posttest results of the control group are as follows: six students (23%) are in the excellent category, seven students (27%) are in the good category, five students (19%) are in the sufficient category, and eight students (31%) are in the insufficient category.

The results of the posttest for the experimental class demonstrate a greater proportion of students achieving excellent results, in comparison to the control class, where only a small number of students attained this level of performance. Thus, students in the experimental class who utilized the Adobe Flash media treatment exhibited superior learning outcomes compared to students in the control class who did not employ Adobe Flash media.

The use of media in learning has a significant effect on students' English learning outcomes, and there is an interaction effect between learning media and learning interest. Increased student interest in learning is one indicator of increased learning outcomes (Apriani, 2019). Adobe Flash is also one of the media that teachers can use during classroom learning. The existence of new and interesting learning experiences makes students more enthusiastic so that focus on learning can increase. Teachers are always looking for ways to keep students focused but relaxed because that is the key to being able to absorb knowledge. (Wahyuni et al., 2021) posit that English learning media based on Adobe Flash through an e-learning system can enhance students' English learning outcomes by facilitating an interactive, engaging, and enjoyable learning experience. Some educators continue to rely exclusively on PowerPoint as a learning medium. The integration of PowerPoint with Adobe Flash is predicted to enhance student engagement and attention. As evidenced by research conducted by (Saputro et al., 2018), the integration of Adobe Flash into e-learning media has been shown to enhance student learning outcomes in a contextual learning environment, when compared to the use of interactive PowerPoint media.

The results of the Mann-Whitney test indicate that the asymptotic. The p-value is greater than 0.05, which is statistically significant (two-tailed). It can thus be that there is a significant difference between the learning outcomes of Class A who used Adobe Flash media and Class B who did not use the media. The application of Adobe Flash is considered suitable for improving student interaction, motivation, and learning outcomes in foreign language learning. In a study conducted by (Adnyani et al., 2018), the Adobe Flash CS6-based learning media, "MojiGoiGo!" was found to be an effective tool for preparing for the Japanese Language Proficiency Test. Additionally, (Danis, 2019) also said that Adobe Flash multimedia learning media effectively improves students' ability to learn Arabic and facilitates teachers in teaching and learning activities.

Conclusion

This study shows that the use of Adobe Flash learning media has a notable impact on student learning outcomes in English-related subjects. The data demonstrated a notable increase in the percentage of student activity achievement across the three meetings, with the initial meeting reaching 62.76%, the second meeting 77.33%, and the third meeting 80.33%. This increase reflects a positive shift in learning outcomes, with students instructed via Adobe Flash demonstrating superior performance compared to those taught using traditional media. The experimental group demonstrated superior performance on the posttest, with 17 students (65%) achieving excellent results, compared to the control group, where only 6

students (23%) attained this level of proficiency. Furthermore, the observation of teacher and student activities during the learning process yielded positive results. The use of Adobe Flash media by teachers was observed to facilitate the attraction of attention and the stimulation of interaction with students, which in turn was seen to enhance students' focus and enthusiasm in learning. The use of this media proved effective in improving the quality of learning and students' learning outcomes

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