Original Article

The Influence of *Web-Based Emaze* Media on Student Learning Outcomes in History Subject Class XI SMA Negeri 1 Montasik

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Abstract :

Learning outcomes are often a barrier to achieving learning goals. The use of various interesting media during the learning process can improve student learning outcomes. This study aims to find out the application of Web-based Emaze learning media *in grade XI of SMA Negeri 1 Montasik and to find out how much influence* Web-based *Emaze* learning media has on the learning outcomes of grade XI students of SMA Negeri 1 Montasik. This study uses a quantitative approach with a type of *pre-experimental design research* in the form of *one group pretest posttest design* where there is only one group. The population in this study is all grade XI students totaling 6 classes. The sample in this study is 25 students in class XI.3 with sampling using *purposive sampling techniques*. The data collection techniques used are observation, tests, and documentation. In the data analysis technique, the normality test, the homogeneity test, and *the t-test* differ from the two averages. The average score result before using *Web-based Emaze* media was 52.8 categorized as low and after being treated with a student's average score of 76 was categorized as high, this proves that there has been a significant change in student learning outcomes. Based on the results of the > test score or 12,889 > 1,714 at the significance level of α = 5% (0.05), it was rejected and accepted or there was a real (significant) influence on student learning outcomes before and after using $t_{hitung} t_{tabel} H_0 H_a$ *Web-based Emaze* learning media in History subjects. Thus, the use of *Web-based Emaze learning media* has an effect on the learning outcomes of History students in grade XI.3 at SMA Negeri 1 Montasik.

Keywords: Web-based *Emaze* Media, Learning Outcomes.

Introduction

Education is a very important thing to encourage the progress of a nation, the nation will not progress if there is no education in it. Learning outcomes are often used to measure how far a person is in mastering the material that has been taught, where success in the teaching and learning process at school can be seen from the learning outcomes that have been achieved by students which can be assessed from cognitive, affective, and psychomotor aspects. Several studies of learning outcomes that have been written by Lisa Yana (2022) and Novera Alita (2017) discuss low learning outcomes in several schools in Indonesia and these researchers are trying to improve learning outcomes by using media and learning models that can be applied in

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schools. From the study, the researcher used *Emaze media and* the Problem Based Learning *learning model*, while in this writing the researcher used *Emaze* media assisted by *the Problem Based Learning* model to improve student learning outcomes.

However, in reality, based on the results of observations in schools at this time, namely student learning outcomes have not reached learning goals, especially in history lessons. From the results of an interview with Mrs. Nursyidah, S.Pd at SMA Negeri 1 Montasik, the researcher saw that during the learning process, teachers did not use learning media as a tool in delivering material to students, as a result, most students felt that the lesson was boring and difficult to understand. This can also be proven from researchers who found the scores of students who did not meet the Minimum Completeness Criteria (KKM) where the KKM score in the history subject was 70.

These problems must be immediately given a solution, where the researcher plans a solution to improve learning outcomes by applying interactive learning media, one of which is by using *Emaze* learning media. Motti Nisani and Shai Schwartz in 2009 developed *Emaze* which is a *software as a service* (SaS). To be able to use *Emaze media* requires a computer that is connected to the internet or online. Although it is the same as powerpoint and microsoft office, *Emaze* has more advanced and interesting features. *Emaze* has more features than Microsoft Office PowerPoint, such as 3D features, merging with youtube, and other features (Harahap et al., 2023:78).

Emaze is one of the interactive learning media for creating online presentations that allows its users to create visually appealing and interactive presentation slides. According to Hakim (2023:18), *Emaze* is an interactive presentation maker application that allows teachers and students to make interesting and fun presentations. *Emaze* can be used for interactive history learning media that is fun and effective.

Therefore, the use of interactive learning media can be used as an option to increase students' enthusiasm for learning so that students' learning outcomes can be increased. If the learning outcomes are successful, it can be said that the learning process that has been carried out is successful. Emaze Media is a solution for teachers in improving student learning outcomes.

Based on the background of these problems, the formulation of the problem in this study is as follows:

1. How is the application of web-based emaze media in the history subject of class XI of SMA Negeri 1 Montasik ?
2. Does web-based emaze learning media affect student learning outcomes in history class XI of SMA Negeri 1 Montasik?

Method

In relation to the formulation of the problem and the objectives of the researcher, the method used in this study uses a quantitative approach. Quantitative research is research with tools to process data using statistics, therefore the data obtained and the results obtained are in the form of numbers. The quantitative research measurement process is an important part of determining the final conclusions to see how the relationship between research variables is (Sahir, 2022: 13).

The type of research used in this study is pre-experimental *research*. *Pre-experimental* research is a research that is not actually a research because there is no control variable that provides control over the research conducted. This study was only conducted to see the results of the influence given by independent variables on dependent

variables. There is no control of control variables in this study, so there is still an influence of variables outside the research being conducted. The research design uses *one group pretestposttest*. *One group pretestposttest* research is a research design that is carried out in *the pretest* and *posttets stages*. *Pretest* is carried out to see the initial condition before being given treatment or manipulation, while *posttest* is a state that can be observed after being given treatment or manipulation (Fadjarajani et al., 2020: 71).

The population in this study is all grade XI students of SMA Negeri 1 Montasik which consists of 6 classes, with a total of 175 students. The sample extraction technique uses the *Purposive Sampling Technique,* according to Sugiyono (2024:85), *purposive sampling* is a way to determine the sample with certain considerations. Because the class distribution is uniform, there are no special classes, and sampling is based on certain aspects, the sample that will be used is students of class XI.3 which totals 25 students.

In this study, the data collection techniques used are observation, tests and documentation. This observation technique is one of the data collection techniques by conducting direct observations, events or behaviors in the field (Romdana et al., 2025:42). Observation was used to see the influence of *Emaze* media on student learning outcomes in history subjects in class XI.3 of SMA Negeri 1 Montasik. The table of criteria for the success of observation refers to the following table:

Table 1.1 Assessment Score Criteria

Yes	Score	Criteria
1	0-20%	Less Than Once
2	21-40%	Less
3	41-60%	Enough
4	61-80%	Good
5	81-100%	Very good

Source: Riduwan & Akdon in (Jasmalinda, 2021:2201)

The test is used to measure cognitive abilities (hard skills) while the scale is used to measure non-cognitive abilities (soft skills). Cognitive aspects include memory, cognitive skills, visual and spatial processes, and executive function. Non-cognitive aspects include motivation, interests, communication and interpersonal interaction, and self-efficacy. Cognitive tests can be measured directly and the response of the subject to the object being measured is decisive (Abdullah et al., 2022:67). The test given is in the form of multiple-choice questions for students to do. The form of test used is an objective test of 10 questions in the form of multiple choice with four answer choices, each correct answer gets a score of 10 and if the answer is wrong gets a score of 0. The criteria for completeness of student learning outcomes can be measured through the following table:

Table 1.2 Criteria for completeness of student learning outcomes

Criteria (Completeness of Learning Outcomes)	**Interpretation**
90 ≤ KHB < 100	Very good
80 ≤ KHB < 90	Good
70 ≤ KHB < 80	Enough
45 ≤ KHB < 70	Less
0 ≤ KHB < 45	Less Than Once

Source: Trianto in (Hadijah et al., 2020:314)

Documentation is from the origin of the word, which means written goods, documentation is done to collect data from document sources and records (Priadana & Sunarsi, 2021:59). The data collected to support this research is such as a list of names of students who are a research sample and also the school profile of SMA Negeri 1 Montasik, school locations and facilities to support the teaching and learning process process.

The data analysis technique used a normality test, a homogeneity test, and a t-test that differed from the two averages. Activities in data analysis include grouping based on variables and types of respondents, tabulating data based on variables from all respondents, presenting data for each variable being studied, conducting calculations to answer the formulation of the problem, and conducting calculations to test the hypotheses that have been proposed (Sugiyono, 2024:147). The researcher used the help of *the computer program application SPSS version 30.0 for windows* to analyze the data.

Research Results

1. Application of *Web-Based* Meda *Emaze* in History Subject Class XI.3 at SMA Negeri 1 Montasik

As described in chapter III above, research is a deliberate effort made to solve a problem by implementing a scientific approach.

This study uses quantitative research with a type of *pre-experimental design* research with *a one group pretest-postest design* design which in the implementation process only uses one class group that will be given treatment and evaluation. The classes selected as samples in this study were all students in grades XI-3 totaling 25 students, and all of them were present when the research was carried out on May 5, 2025. The History learning process using *Emaze* media is assisted by *the Problem Based Learning* (PBL) learning model in grades XI-3 of SMA Negeri 1 Montasik. The research process is composed of several activities, namely planning activities, implementation and evaluation activities.

a. Learning Planning

The planning process is carried out by the researcher by preparing everything necessary during the research. The researcher held a meeting with the History subject teacher to plan preparations before conducting the research. The material chosen by the researcher was about the "Proclamation of Indonesian Independence". The researcher prepares a teaching module, Student Worksheet (LKPD). After that, the researcher also prepared the media used, namely *Emaze media* combined with the PBL model. In addition, the researcher made an assessment instrument with *postest* questions totaling 10 multiple-choice questions which would later be given after students participated in learning using *Emaze* media assisted by *the Problem Based Learning* (PBL) model.

b. Learning Implementation

The implementation of learning is systematically arranged according to the plan that has been made in the teaching module which is carried out face-to-face for two hours of learning with one meeting with students of grade XI.3 as a sample in this study. The learning process took place using *Emaze media* with the help of *the Problem Based Learning* (PBL) model in the material "Proclamation of Indonesian Independence". The first implementation of the preliminary activity began with the teacher entering the classroom by saying greetings, then students prepared and answered the greetings from the teacher, then continued by reading the prayer together and preparing the things that will be needed when the learning took place. Furthermore, the teacher attends students to see the students'

attendance, checks the readiness of students and the classes to be used. After that, the teacher motivates the students with motivational words about learning. After that, the teacher opens the learning and delivers a little explanation of the learning material using *Emaze media*, accompanied by doing questions and answers to see the students' initial abilities.

The implementation of the core activity is preceded by the teacher explaining the learning objectives to be achieved. Furthermore, students listen, observe and understand the teacher's explanation regarding the material through *the Emaze media* displayed and the teacher gives students the opportunity to ask questions if the material explained has not been understood by the students. Students are also given the opportunity to search for literature on the material discussed. Then the teacher divides students into several groups consisting of 4 groups and each group is given an LKPD which is done by dividing group tasks. Teachers also guide students in working on LKPD and encourage each group to be able to work together honestly. After that, the teacher guides the group discussion and continues with a group presentation by giving opportunities to representatives of each group. The teacher gives the opportunity to the other group to provide corrections or suggestions to the results of the group's work that has finished presenting the results of their work. After that, the teacher strengthens the concept of the material by explaining the material and anything that is lacking in the student's LKPD work.

The closing activity was carried out with the teacher giving appreciation to all students by applauding and giving students the opportunity to convey their responses about the implementation of learning carried out today. Furthermore, the teacher drew conclusions from the learning activity about the material "Proclamation of Indonesian Independence". Continuing at the evaluation stage, the teacher gave *postest* in the form of multiple choice totaling 10 questions. The test questions are done independently and collected before the learning process ends. Then after everything is finished, the teacher and students close the learning by saying greetings to end the learning.

c. Learning Evaluation

uneven where in the work of LKPD some students dominate the discussion and some tend to be passive, even though they have been given the division of tasks, the reality in the class shows that not all students understand the responsibilities in teamwork. Second, the time constraints where many of the final presentations were done in a hurry and many from other groups did not respond or correct the results of the group's work that had been completed. Third, none of the students gave a response regarding the implementation of the learning that had been carried out.

Based on the results of the reflection above, the follow-up that will be carried out is to conduct a brief briefing on working in a team and the importance of the participation of all group members, rearrange the allocation of learning time to be more adaptive, especially in the group presentation stage, and finally provide written reflection to each individual so that they are free to express their opinions without pressure from their classmates.

Learning evaluation aims to see the extent to which students have achieved the learning goals that have been set. The learning evaluation used in this study is to use observations that are used to see student learning outcomes during student learning activities that take place from the beginning to the end of learning.

Student Learning Outcomes Score Before and After Using *Web-Based Emaze* Media Class XI.3 SMA Negeri 1 Montasik

Table 1.3 Student learning outcomes before and after using *Emaze media*

Yes	Student Name	*Pretest*	*Postest*
1.	AF	30	60
2.	TO	80	100
3.	FT	60	70
4.	FL	50	80
5.	HK	60	90
6.	HM	60	60
7.	KL	50	70
8.	MF	60	80
9.	MK	50	60
10.	MS	70	90
11.	MR	50	70
12.	MF	50	70
13.	MH	30	50
14.	MK	50	70
15.	MD	40	80
16.	MR	40	70
17.	MZ	20	50
18.	NF	80	100
19.	NF	50	80
20.	OR	50	80
21.	RJ	60	90
22.	S.S.	70	100
23.	YOUR	70	80
24.	TN	50	80
25.	YD	40	70
	Total	1.320	1.840
	Average Score	52,8	76

Source: Exsel Data Processing (2025)

2. The Influence of *Web-Based Emaze Media* on the Learning Outcomes of Grade XI.3 Students at SMA Negeri 1 Montasik

From table 1.3 above, before conducting *a paired sample test*, the *results of the pretest* and *posttest* above are first tested for normality using *the computer program application SPSS version 30.0 for windows*. The results of the normality test can be seen in table 1.4.

Table 1.4 Normality Test

Tests of Normality					
	Kolmogorov-Smirnov[a]			*Shapiro-Wilk*	
df	Sig.	*Statistic*	df	Sig.	

25	.027	.951	25	.260
25	.160	.941	25	.154

a. Lilliefors Correct Significance

Source: IBM SPSS Ver30 data processing, 2025

Based on table 1.4 The normality test on the results of *the pretest* and *posttest* scores in class XI.3 can be seen in the shapiro-wilk column a sig value of 0.260 is obtained at *the pretest* value which means greater than 0.05, and in the *posttest* it is obtained at 0.154 which is greater than 0.05. So, it can be concluded that the data used in this study is distributed normally.

Table 1.5 Homogeneity Test

Tests of Homogeneity of Variances

		Levening Statistic	df1	df2	Sig.
Learning Outcomes	Based on Mean	.000	1	48	1.000
	Based on Median	.021	1	48	.886
	Based on Median and	.021	1	47.407	.886

	with adjusted df				
	Based on trimmed mean	.000	1	48	.986

Source: IBM SPSS Ver30 data processing, 2025

Based on Table 1.5 The homogeneity test on the results of the *pretest* and *posttest* scores in class XI.3 of SMA Negeri 1 Montasik, a sig value of 1,000 was obtained, which is also greater than 0.05. Therefore, it can be concluded that the data used in this study is categorized as homogeneous.

Table 1.6 Correlation Results

Paired Samples Correlations

	N	Correlation	Significance One-Sided p	Significance Two-Sided p
Pretest & Postest	25	.809	<,001	<,001

Source: IBM SPSS Ver30 data processing, 2025

Based on the above output, the Sig value from the pretest and posttest *values is* both 0.01, where Sig 0.01 < 0.05, there is a relationship between *pretest* and *posttest*.

Table 1.7 Statistical Results of *the Paired Sample Test*

Paired Samples Test

t	df	Significance One-Sided	Significance Two-Sided

				edp	edp
Pair 1	Pretest - Posttest	-12.889	24	<,001	<,001

Source: IBM SPSS Ver30 data processing, 2025

Based on the output *of the "Paired Sample Test"*, it can be concluded that the value of Sig. (2-tailed) is 0.001. This means that the Sig. value is 0.001 < 0.005 so that there is a significant difference between the learning outcomes of students' History in the *pretest* and *posttest* at SMA Negeri 1 Montasik.

Discussion of Research Results

1. **Analysis of the Application of *Web-Based Emaze* Media in History Subjects at SMA Negeri 1 Montasik**

The research process was carried out face-to-face with one meeting with a duration of 2 hours of lessons or 2x45 minutes, for all XI.3 students totaling 25 students were given treatment with Media *Emaze* based *Web* Assisted by a cooperative learning model *Problem Based Learning*, with the material "Proclamation of Indonesian Independence". Media application *Emaze* based *Web* is a solution offered by researchers to overcome problems with student learning outcomes. Before learning activities begin, the teacher gives observation sheets to teachers or observers to assess the learning process.

Then the implementation process, the teacher opens the learning and delivers a little explanation of the learning material using *Emaze* media accompanied by doing questions and answers to see the students' initial abilities. Then divide students into several heterogeneous groups consisting of 4 groups and each group is given a Student Worksheet (LKPD) which is done by dividing group assignments. However, before that, students first listen to the explanation of the material from the teacher and understand the material through the material displayed on *the Emaze* media and the learning videos shown on *the Emaze media*. Furthermore, the results of the group discussion were presented by one of the representatives of all groups. Furthermore, at the evaluation stage, the teacher provides postest evaluation questions in the form of 10 multiple-choice questions that are done independently, the purpose of this test is to find out how students are doing after carrying out the learning process in class XI.3 using *Emaze* media. After that, the teacher concluded the learning and closed the learning by saying greetings.

Based on observations during learning activities, it is necessary to find out how the learning process is carried out using *Emaze* media with the help of the PBL learning model during the learning process. The observer from the observation of the influence of *web-based Emaze* media is the teacher of the History subject, Mrs. Nursyidah, S.Pd. Observation of the influence of *web-based Emaze media* is carried out from the beginning of learning activities to the end of learning. Based on the evaluation of the observation results that have been filled in by the observers, the observation score of 82% of the category is very good in accordance with the theory of Riduwan & Akdon in (Jasmalinda, 2021:2201). Based on these results, in line with Mursal's (2014:62) research with the results of observations carried out during the learning process, students who use *emaze* presentation media can be seen as students who provide a positive response to learning, this can be seen from the active role of students shown during the learning process.

So it can be said that the application of *web-based Emaze* media is in accordance with the designed learning steps. Thus, the *Problem Based Learning* model assisted by *web-based Emaze* media has been implemented and runs smoothly in the planned Teaching Module. Then the results of the above research also show how important it is to use learning media effectively to maximize the teaching and learning process. The better the use of learning media will allow students to better understand the subject matter. Thus, students not only become more active in the learning process, but also able to achieve optimal and sustainable learning outcomes.

2. Analysis of the Influence of Learning Outcomes Using *Web-Based Emaze* Media on History Subjects in Class XI.3 SMA Negeri 1 Montasik

This study aims to determine the use of *web-based Emaze media* on student learning outcomes. In the implementation of learning, a comparison will be made with the scores in the *pretest* and *posttest sessions*. The average yield value before the implementation of *web-based Emaze* media in the class was 52.8. This shows that classically and individually, student learning outcomes are included in the low category. After the implementation of *web-based Emaze* media, the average score in the class was 76. This shows that classically and individually it is included in the high category. So it can be concluded that there is an increase in student learning outcomes.

The results obtained will then be processed to find out the difference between the two average t-tests. As for the first stage, namely, the results of the normality test on the results before *(Pretest)* and after *(Postest)* in class XI-3, for *the pretest* a sig. value of 0.260 was obtained in the data which means greater than 0.05 and in the *postest* a sig. value of 0.154 was obtained which was greater than 0.05. Then it can be concluded that the data used in this study is distributed normally. Furthermore, the homogeneity test stage obtained results before *(Pretest)* using *Emaze* media and after *(posttest)* in class XI-3, namely with a sig. value of 1,000 which is greater than 0.05, it can be concluded that the data used in this study is categorized as homogeneous.

Then in the statistical correlation test obtained in this data processing, it is known that the sig. value from before using *Emaze* and *postest* media is both 0.001 where 0.001 < 0.005 then there is a relationship between *the pretest* and *postest* values. Furthermore, based on the data obtained from the results *of the paired sample test*, a sig. value of 0.001 < 0.005 was obtained, so that there was a significant difference between the students' history learning outcomes in the data before using *Emaze media* and after in grade XI-3 of SMA Negeri 1 Montasik. Furthermore, in analyzing the data to test the hypothesis or t-test carried out in this study, the results of the > test criteria or 12,889 > 1,714 were obtained at

the significance level of α = 5% (0.5), then Ho was rejected and Ha was accepted or there was a real (significant) influence on student learning outcomes before and after using $t_{hitung}t_{tabel}$*Emaze* media in History subjects at SMA Negeri 1 Montasik.

The research is in line with the results of the research conducted by Muh Al Mursal (2014) obtained student learning results which can be seen as the results *of the t-test* which shows the data of > results at a significant level of 5% and the sig level of 1% obtained a score of >. In conclusion, Emaze's presentation media $t_{hitung}t_{tabel}t_{hitung}t_{tabel}$ has an effect on student learning outcomes in Biology subjects in grade XI of SMA Negeri 9 Makassar.

Furthermore, a similar study was also carried out by Kartini Harahap (2024) where the average student learning outcomes were obtained at the *pretest* score of 36.04 and *the posttest* score of 85.20 can be seen that the *posttest* score is higher due to the treatment with *Emaze media*. Then, based on the results of the calculation, a score of 12,120 was obtained while at the significance level of 5%, which was 1,711. Therefore, it can be concluded that the hypothesis enforced in this study is acceptable to the competence of students in class X of TKJ SMK Al-Habibi Sibuhuan.$t_{hitung}t_{tabel}$

As for the difference between the results of the previous research and this research, namely in the learning material and the research subject, in this study the material used is "Proclamation of Indonesian Independence" with the research subject of grade XI.3 students at SMA Negeri 1 Montasik. Meanwhile, in previous research, generally the material used was different and the research subjects came from different levels or classes. Thus, the researcher can conclude that the results of data analysis show that *web-based Emaze* media has a positive impact on improving student learning outcomes at school.

Conclusion

First, the application of the media *Emaze* based *Web* in the subject of History students in grade XI.3 of SMA Negeri 1 Montasik has been carried out well in accordance with the steps of the learning model *Problem Based Learning*. The process of this research is composed of several activities, and the implementation of activities is carried out in accordance with the Teaching Module that has been designed by the researcher and the evaluation activities used in this study are using observation. This can be seen in the analysis of media application *Emaze* based *Web* Using observations with a percentage of 82% which is included in the very good category.

Second, the influence of the application of the media *Emaze* based *Web* Regarding the history learning outcomes of students in grade XI.3 of SMA Negeri 1 Montasik, which can be seen based on the hypothesis test obtained by the ttable > calculation test or 12,889 > 1,714 at the significance level of α = 5% (0.05), then Ho was rejected and Ha was accepted. It can be concluded that there is a real (significant) influence on the application of media *Emaze* based *Web* to the learning outcomes of History students in class XI.3 of SMA Negeri 1 Montasik.

Suggestions

Based on the results of the research and the discussion that the researcher has described previously, the suggestions for this study are as follows:

1) For schools, it is hoped that they can add facilities and infrastructure to support the implementation of teaching and learning activities in schools to be more optimal.
2) For teachers, it is hoped that they can start using *web-based Emaze* media in teaching and learning activities because it can help create an active learning environment so that learning can be maximized.

3) For students, it is hoped that it can foster greater curiosity in the learning process so that this can increase the rate of understanding of the material delivered by teachers at school.
4) For the author, it is hoped that they can conduct other research using *web-based Emaze* media with more diverse data analysis methods so that the results obtained are really maximum and represent the entire learning process.

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