
The effect of using the Nearpod application with the EMRED approach to improve the vocabulary of grade 3 elementary school students

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Abstract

This study aims to find out how the Nearpod application with the EMRED approach affects the English vocabulary of 3rd grade elementary school students. This study uses experimental quantitative research methods. The research design used is Quasi Experimental Design, using a control class and an experimental class. The experimental class was given treatment using the Nearpod application learning media with the EMRED approach, while the control class only used the teaching media that teachers usually use during classroom learning. The sampling technique uses the Simple Random Sampling technique with the population being all 3rd grade students of SDN Purwakarta 1. Data were obtained from the results of the pre-test and post-test given to students in both the control class and the experimental class as well as the student response questionnaire given only in the experimental class. Furthermore, the data obtained will be analyzed using the normality test (Saphiro-Wilk) and the homogeneity test (Fisher test) as a prerequisite for the hypothesis test (Independent Sample t-test) with the help of IBM SPSS Statistic 20 Software. The average data of pre-test results of 80 in the control class and 81 in the experimental class were obtained, as well as the average data of the post-test results of the control class 73 and the experimental class of 86. From the results of the T (Independent Sample t-test) test, the result of the Sig. (2-tailed) value of $0.001 < 0.05$ was obtained, which means that H_0 was rejected. The average results of the questionnaire as a follow-up of students showed that the figure of 88.75% was included in the very good category. The conclusion of this study is that there is an average difference between the results in the control class and the experimental class, which means that there is an influence of the use of the Nearpod application with the EMRED approach on improving the vocabulary of grade 3 students of SDN Purwakarta 1.

Keywords: nearpod; Scarlett; vocabulary; English

INTRODUCTION

The current Merdeka curriculum places a special emphasis on learning English for primary school students. According to the Decree of the Minister of Education and Culture No. 096/1967, English has been determined as the main foreign language in Indonesia. According to Fitriyani & Nulanda (2017) English is an international language that is also used as the main medium in primary, secondary, and higher education for children who learn it at school age. In this context, English becomes essential to be learned as part of primary education because it provides a solid foundation before students proceed to a higher level of education.

By introducing and teaching English in primary school and equivalent levels, students will begin to understand and get to know English from an early age, albeit in a context that is still very limited (Larasaty et.al., 2022). By mastering English at a basic level, students not only prepare themselves for further education but also open up opportunities to understand and communicate in a global context. English learning includes four main aspects, namely speaking, reading, writing, and listening. To be able to master these four English skills, students need to

prepare themselves by mastering adequate vocabulary so that they can communicate fluently using English (Zahari & Ananda, 2024). In other words, without a strong vocabulary base, the process of understanding the four aspects of English will be difficult to achieve optimally.

According to Hajidi et.al., (2019), in the real practice of learning English at the elementary school level, it shows that in the process of learning English, teachers only use a whiteboard and ask students to simultaneously repeat the reading that has been written. Conventional teaching methods tend to hinder students' ability to understand certain languages, including their structure, meaning, and functions, and make students passive recipients of knowledge. As a result, they have greater difficulty in achieving the expected communication goals (Suhardiana, 2019). This method, if applied continuously, is ineffective in developing students' potential. Therefore, additional media are needed that can improve the quality of English learning. Teachers are required to develop and implement teaching strategies and learning media that are more interesting and innovative.

Such as the condition in the school that will be the place of research, namely SDN Purwakarta 1 Cilegon City, precisely in grade 3 in English subjects, teachers have not applied video learning media to their children. Teachers only carry out learning using the teacher center method. Students learn more English vocabulary than just what the teacher speaks in class. Teachers tend to use learning media and approaches that do not attract students' attention. In fact, after being observed by the teacher, students are more interested in learning if they use videos or songs as learning media. Students have difficulties in understanding English learning so that their ability to learn, especially in the students' English vocabulary skills, is not good.

From these conditions, we need to know that the media and learning strategies used have an important role for students. According to Annisa et.al., (2018) learning will be more interesting for students if there is harmony between the selection of learning strategies or methods and the media used and in accordance with the subject matter to be delivered. Learning must be interactive in order to increase student engagement with teachers more effectively. In elementary school, English learning should be designed in a simple and fun way. Therefore, visual-based teaching methods are more recommended, as visualization tends to be easier to remember than just using verbal narratives. One way that can be done is to take advantage of interactive media such as videos and games that are currently widely available on the internet, which can help students in learning English vocabulary in a more interesting way.

The interactive learning medium that will be used in this study is Nearpod. The app is designed to make the teaching and learning process more engaging by actively engaging students and increasing their participation in the classroom as it offers a wide variety of interesting features to use in learning. Nearpod provides a wide range of interactive learning options and is able to provide live feedback (Aslami & ZA, 2022).

The researcher utilized the Nearpod learning media together with the EMRED (Emmersion, Modelling, Repetation, Exploration, Demonstration) learning approach in this study (Salim, 2024). This approach aims to create a learning experience that is not only effective but also engaging, so that students can more easily remember and use the vocabulary learned. With the implementation of the EMRED strategy, it is hoped that the English vocabulary learning process can be more effective and fun.

Based on the problems that have been explained above, the researcher is interested in conducting a study entitled "The Effect of the Use of the Nearpod Application with the EMRED Approach for Improving the Vocabulary of Grade 3 Elementary School Students". This research is expected to be a solution and learning alternative that can improve English learning outcomes, especially in improving English vocabulary.

METHOD

This research was carried out at SDN Purwakarta 1 Cilegon City in the 3rd and 4th week of October. The population used in this study is all 3rd grade students of SDN Purwakarta 1 which totals 68 students. From the population, 40 students were sampled, with details of 20 students in the control class and 20 students in the experimental class. This study uses quantitative and experimental approaches as a research method. Experimental research is a type of research that aims to identify the cause-and-effect relationship between independent variables and bound variables, where independent variables are deliberately controlled and manipulated (Abraham & Supriyati, 2022). The research design used is Quasi Experimental Design with a design form, namely Nonequivalent Control Group Design which is a research design that uses 2 different class groups, namely the control class and the experimental class. The experimental class will later be given a treatment using the Nearpod application with the EMRED approach, while the control class will only learn conventionally. The purpose of the experimental class and the control class was to compare the results of the two classes to see if the use of Nearpod app-based interactive video learning media with the EMRED approach could have a significant impact compared to conventional learning. The following is a form of Quasi Experimental Design with a design form called Nonequivalent Control Group Design that will be used in this study:

Table 1. Research Design (Nonequivalent Control Group Design).

O1	X	O3
O2	X	O4

Information:

O1: Pre-test results in the experimental class

O2: Pre-test results in the control class

O3: Post-test results in the experimental class

O4: Post-test results in the control class

X: Treatment in experimental classes using learning media

This study used test and non-test instruments. The test instruments used are pre-test and post-test question sheets which aim to see the comparison of average student scores before and after learning is carried out, both in the control class and the experimental class. Meanwhile, the non-test instrument used is a questionnaire whose indicators are sourced from the learning stages in the EMRED (Ememersion, Modelling, Repetition, Exploration, and Demonstration)

approach. This research is divided into 3 stages, namely (1) Preparation stage, at this stage the researcher visits the school where the research is conducted to coordinate with the principal and English subject teachers in grade 3 to discuss the research to be carried out and determine the control class and the experiment. In addition, the researcher prepares research instruments that will be used during the research. (2) In the implementation stage, the researcher begins to carry out research by providing pre-test questions in the experimental class and the control class. Then the researcher began to provide special treatment in the form of interactive video learning media based on the Nearpod application with the EMRED approach in the experimental class. As for the control class, the researcher carried out teaching and learning activities conventionally. At the next meeting, which is the final stage, in the experimental class, the researcher gives a post-test and questionnaire to students to be filled out as a form of student response after carrying out learning. Meanwhile, students in the control class were only given post-test questions. (3) In the reporting stage, the researcher collects data from the results of the research that has been conducted. The data that has been collected is then analyzed and poured into results and discussions to draw conclusions.

The data that has been obtained from the results of the pre-test and post-test, both in the control class and the experimental class, will be analyzed using the normality test (Saphiro-Wilk), the homogeneity test (Fisher test), and the hypothesis test (Independent Sample T-test) carried out with the help of IBM SPSS Statistic 20 Software. Meanwhile, the data from the questionnaire will be analyzed and expressed in the form of percentages. The hypothesis in this study is H_a : There is an increase in students' English vocabulary after using interactive video learning media based on the Nearpod application with the EMRED approach. Meanwhile, H_o : There was no improvement in students' English vocabulary after using the Nearpod application-based interactive video learning media with the EMRED approach.

RESULTS AND DISCUSSION

From the data collection process that has been carried out, pre-test and post-test results from the control class and the experimental class were obtained. The data was analyzed using descriptive statistical analysis. The following are the results of descriptive statistical analysis.

Table 2. Descriptive statistical analysis

Student Groups	Minimum Score	Maximum Value	Average
Pre-test control	67	93	80
Post-test control	53	100	73
Pre-test experiment	60	100	81
Post-test experiment	67	100	86

From the table of descriptive statistical analysis results above, it can be seen that the average value of the control class during the pre-test is 80, while the average value of the post-

test is 73. Therefore, it can be known that the students' scores in the control class decreased by 6 after conducting conventional learning. In the experimental class, the average pre-test score was 81, while the average post-test score was 86. This means that the experimental class experienced an increase of 5 after learning using the Nearpod application and the EMRED approach. From the results of the descriptive statistical analysis, it can be seen that students in the experimental class experienced a significant increase in scores, so it can be concluded that there is an influence of the use of the Nearpod application and the EMRED approach on improving the English vocabulary of 3rd grade students of SDN Purwakarta 1.

The next step is to conduct a prerequisite test, namely a normality test and a homogeneity test. Prerequisite tests are carried out before hypothesis tests. The normality test and the homogeneity test of the calculation were assisted using IBM SPSS Statistic 20 Software. The first prerequisite test is a normality test with the aim of finding out whether the data is distributed normally or not. The calculation of the normality test uses the Saphiro-Wilk formula, the data is said to be normally distributed if the Sig value is > 0.05 and the data is not normally distributed if the $<$ value is 0.05. The following are the results of the normality test that has been carried out.

Table 3. Normality test results

Group	Nilai Sig.	Conclusion
Pre-Test Control	0,09	Normal
Post-Test Control	0,424	Normal
Pre-test Experiment	0,102	Normal
Post-Test Experiment	0,069	Normal

Based on the table of normality test results above, the Sig value for the pre-test of the control class was $0.09 > 0.05$ while for the experimental class it was $0.424 > 0.05$. The result of the calculation of the Sig. value for post-test in the control class was $0.102 > 0.05$ while in the experimental class it was $0.069 > 0.05$. Sig. Pre-test and post-test in the control class and the experimental class > 0.05 then it can be concluded that all data are normally distributed.

After the data is declared to be normally distributed, the next step is for the data to be tested for homogeneity. The homogeneity test aims to find out whether the data results of the two classes are homogeneous or not. The homogeneity test in this study uses the fisher test. The data tested were the results of the control class post-test and the experimental class. The data is declared homogeneous if the value based on mean Sig. > 0.05 , but if the value based on mean Sig. < 0.05 , then the data is declared inhomogeneous. The following is a table of the results of the homogeneity test calculation using the fisher test.

Table 4. Homogeneity test results

Result	Levene statistic	df1	df2	Itself.
Based on Mean	.276	1	38	.603

Based on Median	.328	1	38	.570
Based on Median and with ajusted df	.328	1	35.828	.571
Based on trimmed mean	.324	1	38	.573

Based on the results of the calculation of the homogeneity test above, a value based on mean Sig. 0.63 was obtained. This means that the value based on mean Sig. is $0.603 > 0.05$. Therefore, it can be concluded that the data in both the control class and the experimental class are homogeneous.

The next step is hypothesis testing. Hypothesis testing aims to be a benchmark in making final decisions. The hypothesis test will later help to prove whether the hypothesis is accepted or rejected. The hypothesis test will be tested using the T test (Independent Sample T-test). The following is a table of the results of the hypothesis test calculation using the T test (Independent Sample T-test).

Table 5. Hypothesis test results

Class	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Itself.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference
Equal variances assumed	0,276	0,603	-3,473	38	0,001	-13,4	3,858
Equal variances not assumed			-3,473	36,869	0,001	-13,4	3,858

Based on the table of calculations above, it is known that the value of Sig. (2-tailed) is $0.001 < 0.05$, so it means that H_0 is rejected and H_a is accepted. Therefore, it can be concluded that learning with interactive video media based on the Nearpod application with the EMRED approach can improve the English vocabulary of 3rd grade students of SDN Purwakarta 1.

The next step is the analysis of the results of the questionnaire which aims to find out the follow-up of students after learning using the Nearpod application with the EMRED approach. The results of the analysis are expressed in the form of percentages which will later be categorized into very low, low, sufficient, good, and very good. The following is a table of the results of the analysis of the student response questionnaire.

Table 6. Results of the Student Response Questionnaire

No.	Statement	Frequency				%	Ket.	Avera ge
		SS	S	TS	STS			
1.	I'm more excited to learn because of the Nearpod app. (Emmersion)	15	4	1	0	92,5%	Very Good	88,75 %
2.	I am happier when I learn to use the Nearpod app. (Emmersion)	13	5	1	1	87,5%	Very Good	

3.	I find it easier to understand the subject matter when it is displayed through the Nearpod app. (Modelling)	12	5	2	1	85%	Very Good
4.	The teacher helped me a lot to use the Nearpod app during learning. (Modelling)	14	5	0	1	90%	Very Good
5.	I have an easier time remembering material when using the Nearpod app. (Repetition)	14	3	2	1	87,5%	Very Good
6.	I can answer quizzes more easily and more easily using the Nearpod application. (Exploration)	15	3	0	2	88,75 %	Very Good
7.	I became aware of the names of food and drinks in English through the Nearpod app. (Exploration)	17	3	0	0	96,25 %	Very Good
8.	I can ask friends about their likes and dislikes of foods and drinks after learning to use the Nearpod app. (Demonstration)	11	6	1	2	82,5%	Very Good

Based on the table of questionnaire analysis results above, it can be known the students' responses to each item of statement. It can be seen that the majority of students voted strongly in each item of statement. The average percentage of student response questionnaire results was 88.75%, meaning that the average student response results were included in the very good category.

From the results of pre-test and post-test tests in the control class and the experimental class, it can be concluded that there is an influence on the use of the Nearpod application with the EMRED approach on improving the English vocabulary of 3rd grade students of SDN Purwakarta 1. This is evidenced by the results of a significant increase in average scores in the experimental class after learning using the Nearpod application with the EMRED approach. In addition, the hypothesis test obtained by Sig. (2-tailed) is $0.001 < 0.05$, thus meaning that H_0 is rejected and H_a is accepted. This is in accordance with the opinion of Wulandari, et al. (2023) that learning media makes students actively involved in learning, and can increase students' motivation to learn, so that they make more effort when facing various problems in learning. The use of the Nearpod application makes students more actively involved in learning and can increase students' motivation to learn in the learning process.

Based on the results of the questionnaire analysis that has been obtained, it can be seen that the average student response questionnaire score is 88.75% and is included in the category of very good. From the results of the analysis, it can be concluded that the follow-up of learning carried out using interactive video learning media based on the Nearpod application with the EMRED approach is very effective in improving students' English vocabulary. This is in accordance with the opinion of Muslimah (2020) that the learning approach is a method in regulating learning activities and student behavior so that they can actively carry out learning tasks and achieve optimal learning outcomes. The EMRED approach can regulate learning

activities according to the five stages of the EMRED approach, namely Emersion, Modelling, Repetition, Exploration, and Demonstration.

CONCLUSION

Based on the research that has been conducted, classes that are treated with the Nearpod application with the EMRED approach have a superior average score compared to classes that only learn conventionally. This can be seen when learning using the Nearpod application with the EMRED approach takes place, students are more enthusiastic and active in learning, thus creating an interactive learning atmosphere. This can affect the improvement of students' English vocabulary. In line with the results of the questionnaire analysis that has been carried out, the average obtained is included in the category of very good, so it can be seen that learning using the Nearpod application and the EMRED approach is effectively used in learning. Meanwhile, the class only learns using media and conventional learning approaches, students are more silent and listen to what is conveyed so that the class becomes passive. Therefore, it can be concluded that the use of the Nearpod application with the EMRED approach has an effect on improving the English vocabulary of 3rd grade students of SDN Purwakarta 1.

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