JJEE: Jolly Journal of English Education
Vol. 3, No. 2; December 2025
ISSN: 2986-593X(Online); ISSN: 2986-6944(Printed);
Journal Homepage: http://ejournal.staihwduri.ac.id/index.php/jjee

The Effect Of Using Project Based Learning Method On Students' Reading Comprehension At The Eighth Grade Students of SMPS IT IDBS Pinggir

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ARTICLE INFO

Keywords:
Project Based Learning, Reading Comprehension

ABSTRACT

This research was carried out to find out The Effect of Using Project Based Learning Method Toward Students' Reading Comprehension at the Eighth Grade of SMPS IT IDBS Pinggir. The population consisted of 102 eighth-grade students, and 51 students were selected as samples through cluster sampling. Class VIII Sabar (25 participants) was assigned as the experimental group, and class VIII Jujur (26 participants) as the control group. This research used a quasi-experimental method with pre-test and post-test design. The instrument was a multiple-choice reading comprehension test based on indicators of narrative text understanding. The results showed a significant improvement in students' reading comprehension taught using the Project Based Learning method. The average post-test score of the experimental group was 78.60, while the control group scored 60.46. The Independent Sample T-Test result showed a significance value (Sig. 2-tailed) of 0.001<0.05, indicating that the null hypothesis was rejected. Thus, it can be concluded that the Project Based Learning method significantly improves students' reading comprehension at the eighth grade of SMPS IT IDBS Pinggir.

Introduction

Reading is a very important thing in successful language learning and can apply the meaning obtained from the text (Snow, 2013). Reading is also a mean for students to learn something that is not yet known and can expand knowledge. Reading also helps us to gain information, understand vocabulary, and ideas in texts. In Reading, we must comprehend what the text tells about. Comprehending reading text is referred to reading comprehension. Reading comprehension is an ability of the readers to catch the

meaning of the written text. This ability demands the reader to comprehend the text rather than know the meaning of each word in the text. Reading comprehension is the process of creating meaning from the text (Woolley, 2011). The goal of reading comprehension is to gain an overall understanding of what is described in the text rather than to obtain meaning from isolated words or sentences". It is supported by McNamara (2007), reading comprehension refers to the ability to comprehend the ideas of a text and the relationships between ideas communicated in a text.

Reading is a cognitive process where individuals interpret written symbols, like letters and words, to understand their meaning. It involves multiple skills, including decoding, comprehension, and critical thinking. According to Klinger (2007) comprehension is the process of building meaning by coordinating complex processes, such as understanding word meanings, vocabulary, reading knowledge, and fluency. Grabe and Stoller (2002) define reading as the ability to extract meaning from written text and interpret information accurately, suggesting that it's not just about recognizing words but also understanding the intended message.

The comprehension process involves decoding the author's words and then using background knowledge to construct an approximate understanding of the author's message. Reading comprehension is influenced by the reader's knowledge, experiences, and intent, as well as the substance and parts of the text and the circumstance on the other hand setting of reading. In order to understand text, a reader must be able to identify words rapidly, know the meaning of almost all of the words, and be able to combine units of meaning into a coherent message (Westwood, 2001). According to Snow (2002) reading comprehension is the process of simultaneously extracting and constructing meaning through interaction and involvement with written language. The comprehension process involves decoding the author's words and then using background knowledge to construct an approximate understanding of the author's message. So, reading comprehension is the process of taking the meaning of the text from the writer, which involves experience and prior knowledge that the reader has. This process can also be harmonious with the purpose of reading.

King and Stanley (1989) suggest that there are five components of reading that can help students read carefully. Those are finding factual information, this requires students to scan certain details of the text. Usually appears by guessing the question word. Secondly, finding main ideas, the main topic discussed in a paragraph helps students guess the content of the paragraph. Thirdly, the main idea can be found in the first sentence, middle or end of the paragraph. Then, finding the meaning of vocabulary, students can guess the meaning unfamiliar word with him/her by relating them to the surrounding words or the words that appear around them. Next, finding reference, the same word or phrase is found several times in a paragraph. They are usually short and very frequent pronouns, such as he, she, it, they, him, her, and many others. The last, making inference of reading text, students are expected to be able to make accurate predictions. Predictions can be made by correctly interpreting the indicators given by the

author. There are several levels of comprehension. In this case, levels mean different depths of understanding, different analyzes of what is meant (Berry, 2005). Firstly, Literal level, the basic facts are understood through reading comprehension. The question on a literal level can be answered by reading to approach the new information in the text at a glance because it is usually directly stated in the text. Secondly, inferential level, the reader is able to go beyond what is written on the page. Add meaning, and draw the conclusion. The answers are not stated directly in the text, but they're often implied in the text. The last, applied level, the reader attempts to examine the message from the author and apply the message in other settings, such as an article, essay, report, etc.

Project Based Learning

Project Based Learning is a teaching method in which students gain knowledge and skills by working for an extended period to investigate and respond to an authentic, engaging and complex question, problem or challenge. Project based learning is a student driven method of instruction that allows students to learn through inquiry while collaborating with their peers and creating projects to demonstrate their learning (Bell, 2010). This method extends to the teacher how to make the material interesting and challenging to the student by making a project. From several explanations, it can be concluded that Project Based Learning is a learning method that uses projects/activities as student-centered media to carry out an in-depth investigation of a topic. In projects, students are likely to read, research, work in teams, consult experts, use various technologies, write, create media, and speak publicly in the learning cycle process.

In project based learning teachers make learning come alive. Students work on a project over a long period to solve real-world problems or answer complex questions. They demonstrate their knowledge and skills by creating a product or public presentation for a real audience At the same time teachers tasks in the Project Based Learning method need to systematically design a task or project The purpose of this system design is that students can learn about knowledge and skills through searching of excavating. The search and excavation process is carried out in a structured and complex manner also the teacher is the task of formulating a guidance process As a result, students develop in depth content knowledge critical thinking collaboration, creativity and communication skills.

According to Thomas (2000) the characteristics of Project-Based Learning (PJBL) include several important aspects that distinguish it from other learning methods. Here's a more detailed explanation of the characteristics of PJBL: Centrality of the Project, the project is at the center of the learning activities. Students focus on the project and engage in various activities to complete it. The project is designed to motivate students and help them develop better knowledge and skills. Next, driving Question, PJBL starts with a question or problem that motivates students to find answers or solutions. The question is designed to spark students' curiosity and

encourage them to conduct inquiry and investigation. After that, student centered, the students are actively involved in the learning process and make decisions about their projects. Then, authenticity, projects in PJBL are designed to be authentic and relevant to real-life situations. Students can see the connection between what they learn and its application in the real world. This helps students develop better knowledge and skills and prepares them for future challenges. Next, Inquiry based, students conduct inquiry and investigation to find answers or solutions. Students are given the opportunity to collect data, analyze information, and draw conclusions. This helps students develop critical thinking skills and analytical skills. The last, Constructivist, students construct their own knowledge and understanding through experience and reflection. Students are given the opportunity to reflect on what they learn and how they can apply it in real-life situations. This helps students develop better knowledge and skills and prepares them for future challenges.

According to Bell (2010), there are some stages of project based learning method there are speculation, designing the project, conducting the project and evaluating. Speculation is the first stage of this method. On this stage, the teacher adds the project topic list and discusses it with the students. And then, the project will be reflected by students and teacher Nevertheless, the teacher will choose the project and will recognize the problem for the beginner or lower students. It can be concluded that the teacher have an obligation to lead the students before they can choose it for themselves. Designing the project is group formation, assigning roles, and methodology decision is combined to construct the structure of the project. However, this stage is one of important thing to decide how the project is run well. Commanding the project activity is the next stage, it means the students accomplish what have schemed and arranged priority. There are many activities on this stage, the students collect the idea and examine with their group. Thereafter, the problems that have been faced in their work and advertised their final product by group will be deliberated with the teacher. The result of final product can be a presentation, a performance, a product, or a publication then which will be present to the class or wider community. Conducting the project is the last stage of this application the students perform their result project in front of the class. On this stage covers the assessment of the activity by members. However, the main purpose has been attained and completed of the process are discussed by the students.

Based on the preliminary research with Miss Putri Zahratul, S.Pd, an English teacher for 8th grade, it is known that on average, 8th grade students at SMPS IT IDBS Pinggir have difficulty in understanding English texts. These difficulties include the lack of ability to find the main idea, and difficulty in drawing conclusions from the text they read. So, teacher must have a good method so that students can understand the text. Therefore, researcher wants to propose a teaching method which is a useful teaching strategy to improve students.

There are several learning methods that can improve students' comprehension in

reading texts. One method that is considered effective in improving students is Project Based Learning (PJBL). Project-based learning is a teaching method where students gain and apply skills by working on a long-term project that involves an in-depth inquiry into a topic or question (Smith, 2018). Through this method, students are invited to learn actively, collaboratively, and creatively through working on real projects that are relevant to their lives.

Project Based Learning (PJBL) has several advantages, especially in improving critical thinking skills, creativity, and problem solving. In learning reading skill, this method gives students the opportunity to understand texts through various activities, such as analyzing text content, identifying important information, and presenting the results of their understanding through projects such as making posters, reports, or group presentations. In other words, project based learning (PJBL) not only helps students understand the content of the text, but also improves communication and collaboration skills.

To increase the ability of the students reading comprehension, it needs an appropriate learning method to solve their problem. From the problem above, the researcher will conduct a research entitled: "The Effect of Using Project Based Learning Methods Toward Students Reading Comprehension at the Eight Grade Students of SMPS IT IDBS Pinggir".

Method

This research used the quasi-experimental design named Pre-Test Post-Test Nonequivalent-Group Design. In this research takes enough time to carry out research in order to produce good research. The activities carried out for this research were pre-test and post-test. According to Creswell (2012) Population is a group of individuals who have the same characteristics. Population is not just the number of objects studied, but also includes all the characteristics and traits of the subject or object.

Table 1 : The Population

NO	Class	Total Students
1	VIII Sabar	25
2	VIII Jujur	26
3	VIII Ikhlas	28
4	VIII Cerdas	23
	Total	102

The sample is a subgroup of the target population that the researcher plans to study in general about the target population (Creswell, 2009). The researcher choses to take samples using Cluster Random sampling. Cluster random sampling technique is the process of selecting a sample in such a way that all individuals in the defined population have an equal and independent chance of being selected for the sample (Gay, 2016). Cluster random sampling technique is most useful when the populations are very large or spread out over a wide geographic area. So, the researcher used cluster random sampling in choosing the sample. Cluster random sampling selects groups, not individuals. The experimental group will be given the treatment used in the Project Based Learning method toward, and the control group will not be given treatment.

Table 2 : The Sample

No	Sample	Function	Total
1	VIII Sabar	Experimental Class	25
2	VIII Jujur	Control Class	26
TOTAL			51

Finding and Discussion

Table 3: Descriptive Statistic

	N	Minimum	Maximum	Mean	Std. Deviation
Pre-test Experiment	25	40	72	49.76	8.007
Post-test Experiment	25	72	85	78.60	4.453
Pre-test Control	26	36	80	51.08	9.620
Post-test Control	26	40	80	60.46	8.787
Valid N (listwise)	25				

Based on the table, total of pretest score from 25 students in experiment class is 1244 with minimum score is 40 and maximum score is 72. Mean of Pre Test experiment 49,76, standard deviation of Pre Test is 8,007. Then post test score from 25 students in experiment class is 1965 with minimum score is 72 and maximum score is 85. Mean of post-test experiment 78,60, standard deviation of post-test is 4,453. Next, pre-test score from 26 students in control class is 1328 with minimum score is 36 and maximum score is 80. Mean of pre-test control class 51,08, standard deviation of pre-test is 9,620. And the last post test score from pre-test score from 26 students in control class is 1572 with minimum score is 40

and maximum score is 80. Mean of post-test control 60,46, standard deviation of post-test is 8,787.Data of Normality Test.

Table 4: Normality test

	Class	Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Pretest	Experiment	.150	25	.151	.915	25	.040
	Control	.231	26	.001	.876	26	.005
Posttest	Experiment	.223	25	.002	.873	25	.005
	Control	.156	26	.101	.963	26	.464

Based on the table 4, known significance (sig) for all data in the Kolmogorov-Smirnov test and Shapiro-Wilk test > 0,05. It can be concluded that the research data is normally distributed. Because the data is normally distributed, it can be used paired sample t-test to do research data analysis.

The paired sample t-test is used to determine whether there is a difference in the means of two paired samples. The requirement is that the data is normally distributed. To answer the problem formulation, the Paired Sample T-test was used on the pre-test data of the Experiment Class and the post test of the experiment class

Table 5: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PretestExperiment	49.76	25	8.007	1.601
	PosttestExperiment	78.60	25	4.453	.891
Pair 2	PretestControl	51.08	26	9.620	1.887
	PosttestControl	60.46	26	8.787	1.723

Based on the table 5, the pair 1 known as pre-test Experiment class was 49,76 and the mean of post-test experiment class was 78,60. The pair 2 known as pre-test control class was 51,08 and the post-test control class was 60,46. From the data can be concluded that there were significant differences in the mean of the student's reading comprehension at the time of pre-test and post-test.

Table 6 : Paired Sample T-test Experiment Class and Control Class

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	PretestExperiment - PosttestExperiment	-28.840	9.371	1.874	-32.71	-24.97	-15.39	24	<.001
Pair 2	PretestControl - PosttestControl	-9.385	6.783	1.330	-12.12	-6.645	-7.05	25	<.001

Based on the table, output paired test shows the result of compare analysis with using T-test. The difference mean score of Pre Test and Post Test Experiment is -28.840. The standard deviation is 9.371, standard error mean is 1.874 the lower difference is -32.71 and upper difference is -24.97. The result of tcount is -15.39. The significant 2-talled is 0.001 <0,001 and the significant level is 0,05. The difference mean score of Pre Test and Post Test Control is -9.385. The Standard deviation is 6.783, Standard error mean is 1.330. The lower difference is -12.124 and upper difference is -6.645. The result of t count is -7.05. The significant 2-talled is 0,001<0,001 and the significant level is 0,05 it means that the data is valid.

Test guidelines are if the value of sig. (2-tailed) < 0,05 then the hypothesis is accepted. If the value of sig (2-tailed) > 0,05 then the hypothesis is rejected. Based on the result of paired sample t-test that the significant 2-tailed to significant level. It can be seen from sig. 2-tailed is 0,001 < 0,05 from the significant level 5%. It means the Ha was accepted the Ho is rejected.

Table 7: Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Score Readng	Based on Mean	7.993	1	49	.007
	Based on Median	7.895	1	49	.007
	Based on Median and with adjusted df	7.895	1	39.232	.008
	Based on trimmed mean	7.999	1	49	.007

The significance value (sig) based on mean 0,07 > 0.05 is known from the table. Thus, it may be said that the post-test results for the experiment class and the control class were similar.

Table 8: The Independent Sample T-Test Group Statistic

	Class	N	Mean	Std. Deviation	Std. Error Mean
Score Reading	Post-test Experiment Class	25	78.60	4.453	.891
	Post-test Control Class	25	60.46	8.787	1.723

Based on the table above, the mean of posttest in experiment class was 78.60 and posttest in control class was 60.46. Standard deviation experiment class was 4.453 and control class was 8.787. The std. error mean experiment class was 0.891 and control class was 1.723.

Table 9: The Independent Sampe T-Test of Post-test Score in the Experiment Class and Control Class

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Score Reading	Equal variances assumed	7.99	.007	9.24	49	.001	18.14	1.963	14.19	22.08
	Equal variances not assumed			9.35	37.36	.001	18.14	1.940	14.21	22.07

Based on the table, the independent sample t-test data, the researcher compared the data by orientating number of significant. if probability > 0,05, it means there is significant difference. Based on the score of probability gathered by SPSS 27, it can show that sig. (2-tailed) was smaller than 0,05 (0,001<0,05). Thus, the researcher concludes that there is significant difference on students' reading comprehension between experiment class and control class.

Conclusion

Based on the result of the research, the researcher concluded that the use of project based learning in learning reading improve the students' reading comprehension at the eighth grade students of SMPS IT IDBS Pinggir. It was proved with the higher mean score of students' post-test (78.60) for experimental group than the mean score of students' post-test (60.46) for control group. The paired significant is smaller than.05 or .001< .05. This means there is a significant difference result between using and not using project based learning method and students reading comprehension.

Acknowledgements
Thank you for my supervisor for your correction, suggestion, guidance, and kindness in completing this research.

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