

Implementing Project-Based Learning in a Hybrid Setting: The Effectuality of the EFL Students' Reading Comprehension

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Abstract. Moving face-to-face reading class to a hybrid learning during the COVID-19 pandemic constructs challenges for EFL teachers. The EFL teachers must apply appropriate learning models in a hybrid setting. This current study aimed to examine the effectuality of project-based learning in a hybrid setting on the EFL teacher candidates' reading comprehension. A quasi-experimental study was conducted for seven weeks to deal with the purpose. The participants were 50 students selected from an English Language Education Study Program at a public university in eastern Indonesia where the researchers had been working as a lecturer. Twenty-five participants joined the experimental class, and the rest entered the control class. The students in the experimental group were taught reading comprehension using project-based learning in the form of hybrid learning. In contrast, the conventional method in a hybrid setting was applied to teach the students reading comprehension in the control group. The reading comprehension test was distributed to both groups as pre-test and post-test. Based on the result of inferential analysis through SPSS, it was found that the implementation of project-based learning in a hybrid setting benefited the EFL teacher candidates in terms of improving their achievement in reading comprehension

Keywords: Project-Based Learning, Hybrid Setting, COVID-19 pandemic

1 Introduction

One of the things needed to master English is reading. Therefore, reading is significant for EFL teacher candidates. In addition, most of the learning resources are in the form of reading text [1]. Reading in ELT could develop learning language subskills. [2] emphasizes that reading could cause learning vocabulary and developing a semantic map between the words in the reading texts.

In learning reading comprehension, there are many reasons students are not interested in this learning. Besides being boring, students also always face difficulties, especially when they find unfamiliar words in the text they read. These reasons lead to poor student learning outcomes in this study.

Many studies have been carried out to improve the learning process due to students' failure in learning reading comprehension. Unfortunately, few studies, especially in Indonesia, examine the effectuality of the implementation of Problem-Based Learning in improving reading comprehension activities and learning outcomes in the classroom. Therefore, this research is limited to how Problem-Based Learning applied in a hybrid setting can improve the students' reading comprehension achievement, especially the EFL teacher candidates.

2 Research Method

2.1 Research design

This study was quantitative study that emphasizes the Pre-test Post-test Non-equivalent Control Group Design [3]. The effectuality of Project Based Learning in a hybrid classroom to improve students' reading comprehension achievement was measure through the mean score of pre-test and post-test. Because the participants were picked employing a cluster sampling technique, this study is a part of a quasi-experimental study.

2.2 Participant

The sample was selected using the cluster sampling technique and divided into two classes. Twenty-five participants were put into the experimental class, and the rest were placed in the control class. All participants were EFL teacher candidates registered at a public university in eastern Indonesia between the age of 18 to 23.

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2.3 Instrument

Reading comprehension achievement was measured using a reading comprehension test consisting of 30 items of the question with five answer options. The test was distributed to both classes as pre-test and post-test. However, before the test was distributed to all participants, the test was first tested for validity and reliability to ensure the test could be used to assess the students' reading comprehension achievement. The data achieved from the test was then examined using the Independent Sample t-test, which aims to identify the difference in the form of a mean score between the two independent classes.

2.4 Procedure

This study runs for seven weeks or 14 meetings in a hybrid setting. At the first meeting, both classes were given a pre-test. After that, the participants in the experimental class were given treatment in the form of learning using project-based learning and a conventional model running in the control class each for 12 meetings. At the last meeting, both classes received a post-test with the same topic as the pre-test.

3 Research Findings

3.1 Descriptive analysis

This section covers the reading comprehension achievement of the participants before and after the treatment was applied. After collecting data from the test, it was investigated through descriptive statistics. The data analysis results are organized based on frequency and percentage, as shown in the next section.

Table 1. Frequency and percentage of pre-test score

Category	Experimental Class		Control Class	
	F	%	F	%
Very High	0	0.00	0	0.00
High	1	4.00	0	0.00
Medium	12	48.00	13	52.00
Low	12	48.00	12	48.00
Very Low	0	0.00	0	0.00
Total	25	100%	25	100%

Based on the data presented in Table 1, none of the participants from both classes managed to get a scoring category as very good. However, one participant in the experimental class scored categories as good. In general, all participants scored in the medium and low categories. Based on the frequency and percentage score, it was verified that all participants had the same prior knowledge before being given treatment.

To support and strengthen the description of the previous data, the researchers also measured the mean and standard deviation of the participants' pre-test scores, which are presented in Table 2:

Table 2. The summary of the descriptive statistics of the pre-test scores

Class	Mean score	Standard deviation
Experiment	57.33	8.77
Control	55.33	7.88

Table 2 summarizes the descriptive statistics of the pre-test scores from the two classes studied. The mean score of the participants' pre-test in the experimental class was 57.33. Meanwhile, the mean score of the participants' pre-test in the control class was 55.33. The standard deviation score for the experimental class is 8.77, and for the control, class is 7.88. Based on these data, it can be said that there is no significant difference between the participants' reading comprehension in the experimental class and the participants in the control class descriptively.

Table 3. Frequency and percentage of post-test score

Category	Experimental Class		Control Class	
	F	%	F	%
Very High	4	16.00	0	0.00
High	11	44.00	6	24.00
Medium	10	40.00	16	64.00
Low	0	0.00	3	12.00
Very Low	0	0.00	0	0.00
Total	25	100%	25	100%

Table 3 shows the frequency and percentage of post-test scores of participants. The data shows that four (16%) participants in the experimental class achieved scores categorized as very good. 11 (44%) participants in the experimental class also managed to get score categories as good compared to six (24%) participants in the control class. The rest of the participants in the experimental class obtained scores categorized as a medium, while the participants in the control class still got scores categorized as low (12%) and medium (64%).

Table 4. The summary of the descriptive statistics of the post-test scores

Class	Mean score	Standard deviation
Experiment	75.20	8.77
Control	65.33	8.11

As shown in Table 4, there were differences between the post-test mean score of the participants in the Experimental class (M=75.20, SD=8.77) and the participants' post-test mean score in the control class (M=65.33, SD=8.11). There is a difference in the value of 9.87. It shows that the implementation of project-based learning in a hybrid classroom is effective in improving participants' reading comprehension achievement. The data was then analyzed through an Independent Sample t-test using SPSS to strengthen the previous conclusion.

3.2 Inferential analysis

Before the data collected was tested in the SPSS program, the researchers first verified the normality of the data as a prerequisite for conducting an Independent Sample t-test in the SPSS program. The results of the normality test can be seen in the following Table:

Table 5. Normality of all scores

	Shapiro-Wilk		
	Statistic	Df	Sig.
Pretes experimental class	.931	25	.093
Pretes control class	.913	25	.166
Postes experimental class	.964	25	.491
Postes control class	.965	25	.516

Table 5 shows the pre-test sig. Value of the experimental and control class were 0.93 and 0.166 during the post-test sig. Value of the experimental and control class were 0.491 and 0.516. Because of the entire sig. Value > 0.05, it can be clarified that all data were normally distributed so that the data can be tested in the Independent Sample Test.

Table 6. Independent Samples T-test for the pre-test and post-test

Variable	P-value	(α)
Pre-test	0.402	0.05
Post-test	0.000	0.05

As described in Table 6, it can be seen that the p-value of the pre-test in the experimental and control class is 0.402. That is, the p-value of the pre-test in both classes is higher than the significance level of 0.05 ($0.402 < 0.05$). So the null hypothesis (H_0) is accepted, and the alternative hypothesis (H_1) is rejected. In other words, there was no significant difference between the participants' reading comprehension achievement in the experimental and control class before the treatment was applied. Otherwise, the p-value of 0.000 from the experimental and control class post-test was lower than the significance level of 0.05 ($0.001 < 0.05$). It evidences that the alternative hypothesis (H_1) is accepted and the null hypothesis (H_0) is rejected. Therefore, it can be declared that implementing Project-based Learning in hybrid Learning improves students' reading comprehension.

4 Discussion

The results of this study confirm that implementing Project-based Learning can improve the reading comprehension achievement of EFL Indonesian teachers' candidates. The facts show that this current study is in line with [4], [5], [6], and [7], who all found that project-based learning benefited EFL students in terms of improving their achievement in reading comprehension.

The study results also show that Project-based Learning is one of the most effective learning methods for improving students' reading achievement [8]. It cannot be separated from the increase in students' ability to think

and be creative when teachers apply Project-based learning in the classroom. This theory is in line with the research results from [9] and [10], which prove that the application of Project-based Learning can improve students' critical thinking skills.

There are many advantages when dealing with Project-based Learning in a reading comprehension classroom. Besides being able to improve students' critical thinking skills as described previously, this method can also bring "real life" to the classroom. [8] highlighted that Project-Based Learning is particularly relevant to the ELT Classroom because of its capacity to bridge the "class" with "real life" English. It makes the students easier to understand what they are learning in class.

The effectuality of Project-based Learning is also maximized because it is implemented in a hybrid setting. [11] His research claims that hybrid learning significantly impacts increasingly dynamic learning so that it can shape students into independent learners.

5 Conclusion

This current study investigates the effectuality of implementing Project-based Learning in a hybrid setting in improving students' reading comprehension achievement. The study results indicate that project-based learning benefited the EFL teacher candidates in terms of improving their achievement in reading comprehension. Based on the study results, the researchers suggest that teachers/lecturers can implement Project-based Learning in a hybrid class to improve students' achievement in reading comprehension. In addition, student involvement should be further enhanced when dealing with Project-based Learning. Increasing students' motivation to engage and take full responsibility in learning, especially reading comprehension, will be crucial in implementing a successful method. Several things have not been covered in this research. One of them is the limited time for implementing Project-based Learning in a hybrid class. Therefore, the researchers suggest that further research be carried out with a longer duration of at least one semester.

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