

The Influence of Peer Tutoring Method to the English Learning Outcomes



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Abstract:

Peer tutoring method has gained popularity as an effective method. The main objective of this study was to examine the impact of peer tutoring on the learning outcomes of 7th-grade junior high school students in eastern Indonesia. This research employed an experimental approach, and data was collected using test and documentation techniques. The data collection tool consisted of pre-tested multiple-choice questions, and the analysis involved quantitative methods to assess validity and reliability. The findings revealed that the average post-test score for the control class was 6.422, whereas the experimental class obtained an average score of 14.831. The hypothesis test based on these results yielded a two-tailed p-value of 0.05 ($0.116 < 0.05$), leading to the rejection of the null hypothesis (H_0).

Keywords:

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INTRODUCTION

The English language has become an essential tool for communication in today's globalized world (Noer et al., 2021; Syamsir et al., 2021; Wahab & Astri, 2022). With the growth of international trading exchanges, the increased mobility of people, and the widespread use of the internet (Wahab et al., 2021), English is currently employed as a

lingua franca in numerous professional and academic settings. As a result, there is a growing demand for effective English language learning methods to assist individuals enhance their language proficiency (Astri, et al., 2022).

One such method that has gained popularity in recent years is peer tutoring. Peer tutoring, defined as peer review circles by Manning & Jobbitt, (2018), involves one student teaching another student, and it is often used to support struggling students or to provide additional enrichment for high-achieving students. Peer tutoring can take place in a variety of settings, including formal classroom settings, after-school programs, and community organizations. For example, peer-review circles (PRC) is one of the approaches to collaboratively review an essay (Nur et al., 2022).

Numerous studies have investigated the effectiveness of peer tutoring in various educational contexts, including language learning. These studies have shown that peer tutoring has brought significant impact on language learning outcomes (Lin & Wu, 2014; Topping, 2005). Peer tutoring is particularly effective for improving oral communication skills, such as fluency and pronunciation, as well as for enhancing learners' confidence and motivation.

However, the existing literature on peer tutoring and English language learning has primarily focused on peer tutoring in general, without specific reference to the English language. This gap in the literature is significant because English language learning is a unique process that requires a specific set of skills and strategies. The teacher should give the appropriate teaching method for students (Astri, 2018). Therefore, there is a need for research that specifically examines the impact of peer tutoring on language learning achievement. The objective of this research is to explore how peer tutoring affects language learning achievements.

LITERATURE REVIEW

Previous Studies

Peer tutoring is a widely used teaching strategy in various educational contexts, including language learning. Several studies have investigated its effectiveness in improving academic performance, motivation, and social interaction among students. However, the existing literature on peer tutoring and English language learning outcomes is limited. The existing literature on peer tutoring in general shows that it can have positive effects on learning outcomes. Peer tutoring can enhance academic performance, as well as students' motivation and self-esteem (Topping, 2005). Peer tutoring has also been found to be an effective method for promoting social interaction and cooperative learning among students (Elliott & Busse, 2001)

Research on peer tutoring and English language learning has also shown promising results. For example, (Lin & Wu, 2014) conducted a meta-analysis of studies that investigated the efficacy of peer tutoring in reading for students with disabilities. The results showed that peer tutoring had a positive effect on reading outcomes, including reading fluency and comprehension. The study also found that peer tutoring was an effective method for improving students' attitudes towards reading.

Another study by Quan et al. (2019) investigated the effects of peer tutoring on writing skills in English as a foreign language. The study found that peer tutoring was an effective method for improving writing skills, including grammar, organization, and coherence. The study also found that peer tutoring was an effective method for enhancing students' confidence and motivation to write.

Despite the positive results of these studies, the literature on peer tutoring and English language learning is still limited. There is a need for further research to investigate the distinct impacts of peer tutoring on various aspects of English language learning, including speaking, listening, and vocabulary acquisition. Additionally, research is needed to investigate the

factors that contribute to the effectiveness of peer tutorings, such as the tutor's proficiency level, the nature of the tutoring interaction, and the tutor's training and preparation.

Moreover, the literature review suggests that peer tutoring is a promising method for improving English language learning outcomes. Peer tutoring is effective for promoting academic performance, social interaction, and motivation in various educational contexts (Capp et al., 2018). However, further research is needed to examine the specific effects of peer tutoring on different aspects of English language learning and to identify the factors that contribute to its effectiveness.

Learning Outcomes

The concept of learning outcomes has been growing steadily in education in recent years. Learning outcomes refer to the knowledge, skills, and attitudes that learners acquire as a result of a learning experience. The definition of learning outcomes varies across different contexts, but there is general agreement that learning outcomes should be specific, measurable, and relevant to the goals of the learning experience.

According to Biggs & Tang (2007), learning outcomes can be described as "statements that specify what learners will know, understand, or be able to do as a result of a learning experience" (p. 27). These authors emphasize the importance of aligning learning outcomes with the goals of the learning experience and of ensuring that they are measurable and observable.

Similarly, Bloom's taxonomy of learning objectives. Bloom et al. (1956) provide a framework for defining learning outcomes that are specific, measurable, and relevant. The taxonomy includes six levels of cognitive complexity, ranging from simple recall of information to more complex processes such as analysis, synthesis, and evaluation.

Other definitions of learning outcomes focus on the importance of transferable skills and attitudes. For example, the European Qualifications Framework (EQF) defines learning outcomes as "statements of what a learner knows, understands and can do on completion of a

learning process, which is defined in terms of knowledge, skills and, competencies" (European-Commission, 2018). The EQF emphasizes the importance of transferable skills and competencies that can be applied in different contexts and settings.

In conclusion, the definition of learning outcomes varies across different contexts, but there is general agreement that learning outcomes should be specific, measurable, and relevant to the goals of the learning experience. Over time, the notion of learning outcomes has gained paramount importance in the field of education and frameworks such as Bloom's taxonomy and the EQF guide defining learning outcomes that are specific, measurable, and transferable.

Peer Tutors

Peer tutors are students who are trained to provide academic support and assistance to their peers. According to Topping (2005), peer tutoring can be defined as "a form of structured social interaction in which one student helps another to learn material that is at or below the helper's level of mastery" (p. 631). Peer tutors are typically selected based on their academic achievements and their ability to communicate effectively and work collaboratively with others.

Huang & Hong (2016) define peer tutoring as "an instructional method in which one student assists another student in the same or similar grade in completing academic tasks" (p. 231). This definition emphasizes the role of peer tutors as instructional assistants who help other students to complete academic tasks, rather than simply providing social support.

The use of peer tutors has been shown to have a positive impact on student learning outcomes, as well as on social and emotional outcomes such as self-esteem, confidence, and engagement. In a systematic review and meta-analysis of peer tutoring in reading for students with disabilities, Lin & Wu (2014) found that peer tutoring was associated with significant improvements in reading outcomes, compared to control conditions. Similarly, a study by Cavanagh et al. (2016) found that peer tutoring in mathematics led to significant improvements in both academic and social outcomes for both tutors and tutees.

In conclusion, peer tutors are students who are trained to provide academic support and assistance to their peers. Peer tutoring is a structured social interaction in which one student helps another to learn material that is at or below the helper's level of mastery. The use of peer tutors has been shown to have a positive impact on student learning outcomes, as well as on social and emotional outcomes such as self-esteem, confidence, and engagement.

METHOD

Research Types and Design

This type of research is quantitative research (Creswell, 2009, 2014). Sanjaya (2014) argues that quantitative analysis determines the effects of specific treatments always carried out under certain conditions. The object of research is the influence of the peer tutoring learning model (X) on student learning outcomes in English (Y). The subject study were students in grade VII of SMP Negeri 5 Mandai, Indonesia

This study uses a non-equivalent control group design. This design uses a group, which is an experimental group. The experimental group in this study will be given treatment through the influence of peer tutoring learning models. The experimental group on this design was not chosen randomly.

Table 3.1 Research Design

O1	X	O2
O3		O4

Figure 1. Experimental Design

Information X:

Treatment

O1: Pretest before being treated in the experimental group

O2: Posttest after being treated in the experimental group

O3: Pretest in the control group

O4: Posttest in the control group

This study looked for the influence of peer tutoring learning models on the learning outcomes of Grade VII students at SMPN 5 Mandai in Maros Regency. The study design was chosen by one class to get the treatment of peer tutoring learning models, and one class was not treated.

Population and Samples

Population

The population refers to a defined group of objects or subjects possessing specific qualities and characteristics, which researchers select for study and subsequent analysis and conclusions (Sugiyono, 2010).

The population in this study were all class VII students of SMPN 5 Mandai in the 2019/2020 academic year, totally 9 classes of 228 students, class VII consisted of 15 male students and 20 female students.

Samples

Sugiyono (2010) states that the sample is part of the number and characteristics possessed by the population. Determination of the sample in this study using a purposive sampling technique.

The experimental class used in this study is class VII C. The reason why class VII C is used as an experimental group is that in this study, seen from the low learning outcomes of English, the researcher used a quasi-experimental design method, which was challenging to get it. This study design did not take subjects randomly from the population but used all subjects in one group to be treated. The sample in this research classes VII B and VII C totaled 71 students in the experimental class and the control class using the peer tutor learning model in class VII C the experimental class, which amounted to 35 students.

Data Collection Techniques

Data collection techniques refer to the approaches employed by researchers to gather data. In this particular study, the data collection techniques utilized are related to testing methods.

Test

The researchers utilize a testing method to acquire quantitative data on student learning influences. The test administered is in the format of a multiple-choice test, which is conducted both before and after the intervention in both the control and experimental classes. These tests are referred to as the pretest and post-test

Documentation

Another method for collecting data involves utilizing documentation from its original source, which mainly comprises written materials. This technique involves researchers analyzing various written objects like books, magazines, documents, regulations, meeting minutes, diaries, and more. By closely examining these written artifacts, such as documents, school profiles, school maps, and learning plans, researchers can illustrate the practical application of their research conducted within the classroom setting.

Data Analysis Techniques

In this study, the data analysis method employed is the test technique. The data was analyzed to examine the influence of peer tutoring learning models on student learning outcomes in the cognitive domain. After administering the experimental and control classes, validation tests were conducted.

1. Descriptive Statistics Analysis

Descriptive statistics are data that are viewed from the mean (mean), the standard of variation, variant, maximum, minimum, sum, range, kurtosis and skewness.

2. Inferential Statistical Analysis

Inferential statistical analysis to find out the results of hypotheses using SPSS version 16 to find out the hypothesis test viz.

a. Normality Test

Participation data normality test to prove sample data obtained from normally distributed participation. Several methods are used to resolve normality data,

including the normal chance paper, the chi-square test, the life test with the Kolmogorov-Smirnov technique, and the SPSS 16 statistical program.

b. Homogeneity Test

A homogeneity test is done by investigating whether the two samples come from populations with the same variance or not. This analysis is carried out to ascertain whether the homogeneity assumptions in each data category have been met. If the homogeneity assumption is proven, the researcher can further carry out the data analysis stage. The homogeneity testing technique of the two variables is as follows.

Hypothesis formulation:

Ho = Population has homogeneous variance.

Hi = Population has a non-homogeneous variance.

FINDINGS

Before conducting research, this researcher observed the students to collect initial data about what learning methodology was considered complicated, complex and disliked lesson and the reasons for liking or disliking the lesson.

The main objective of this study is to assess the efficacy of particular methods or treatments in one village's pretest and posttest design. This study uses an experimental group, Pretest (before the technique is applied) and a posttest (the test has been applied to the method). In studies that use the experimental and control groups, the experimental and control groups use independent sample t-tests.

Learning outcomes of students in the experimental class are the effect of student learning after the research carried out the learning process of peer tutoring methods, statistically descriptive, the effect of student learning in the experimental class can be seen in the following table.

Table 1
Descriptive Group Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Post Test Experiment	35	30	85	53.97	14.831
Post Test Control	35	30	52	39.14	6.422
Valid N (listwise)	35				

Table 1 above shows the number of experimental respondents (N) there were 35, out of these 35 respondents the smallest (minimum) student score was 30, and the student value of (Maximum) was 85. The average value of 35 respondents or the mean of 53.97 with a Foreign Exchange Standard of 14.831. While the number of control respondents (N) was 35, out of 35 respondents the smallest (minimum) student value was 30, and the student score of (Maximum) was 52. The average value of 35 respondents or the mean of 39.14 with a Foreign Exchange Standard of 6.422.

Table 2
Results Tests of Normality

Class	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Learning Experiment	.141	35	.075	.950	35	.116
Outcomes Control	.136	35	.098	.936	35	.041

The results presented in Table 2 display the outcomes of the Shapiro-Wilk and Lilliefors tests. For the Lilliefors test, the obtained p-value (sig) is 0.075 for both groups, where the critical values are $0.05 < p < 0.05$. Consequently, according to the Lilliefors test, the data in each group follows a normal distribution. Regarding the Shapiro-Wilk test, the p-value for the experimental group is $0.05 < 0.116$, and for the control group, it is $0.05 > 0.041$. As both p-values are greater than 0.05, it can be inferred that both groups exhibit similar distributions based on the Shapiro-Wilk test.

Table 3
Test of Homogeneity Variance

		Levene statistic	df1	df2	Sig.
Learning Outcomes	Based on Mean	29.962	1	68	.000
	Based on Median	28.901	1	68	.000
	Based on the Median and with adjusted df	28.901	1	49.422	.000
	Based on trimmed mean	30.011	1	68	.000

Using the information from the table provided, the significance value (sig.) for the variable "learning outcomes in English" is determined to be 0.000. Since the sig. value (0.000) is greater than 0.05, it can be inferred that the data's variance for English learning outcomes among both the experimental and control class students is homogenous.

Table 4
Results of the Difference Test Relationship (Independent Samples Test)

		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
Learning Outcomes	Equal variances assumed	29.96	.002	5.428	68	.000	14.829	2.732	9.377	20.280
	Equal variances not assumed			5.428	46.317	.000	14.829	2.732	9.331	20.327

Based on table 4 the Sig value is known. Levene's Test for Equality of Variance is $0.000 > 0.05$, meaning that the data variance between the experimental and control groups is homogeneous. So, the interpretation of table 4 Independent Samples Test above is based on the values in the table "Equal variance assumed."

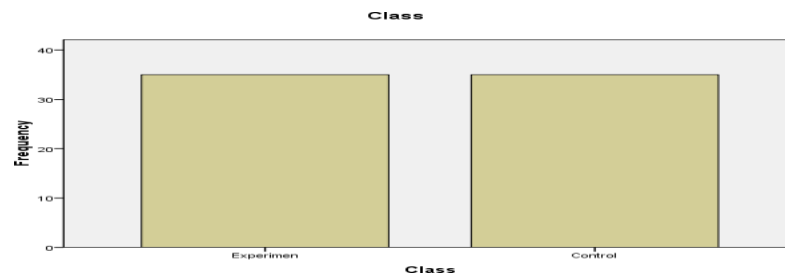


Figure 2. Experiment and Control class diagram

DISCUSSION

This research was conducted at SMP Negeri 5 Mandai, Maros Regency, class VII B and VII C. The aim was to obtain information on the influence of peer tutoring methods on student learning outcomes in English learning. The study was conducted in class VII C of SMP Negeri 5 Mandai, with 35 students. The peer tutor method is a way that can affect student learning outcomes because students who do not understand the material but do not dare to ask questions and classmates who have been appointed as tutors. This is in line with Rosanti (2018) that the peer tutoring method is a learning method that is done by empowering students who have high absorption from students groups themselves to become tutors for their peers, where students who become, tutors are assigned to provide learning and training material to his friends, who do not know the material/training provided by the rules agreed together in the group so that it will arouse the atmosphere of cooperative group learning.

The formation of groups in the peer tutoring learning method is arranged so that students are heterogeneous pairs, in the sense that students are highly skilled together with students who are low in skills (Manning & Jobbitt, 2018; Nur et al., 2022). This is done so that learning outcomes are evenly distributed so that students assist students who are less skilled with moderate or high abilities. Because in group work, students work as a team to get things

done to achieve common goals. Then the group will be selected by students as tutors. At the time of learning the tutoring method of cooperative setting, the teacher guides students if some have difficulty solving the given problem, and at the end of the teacher's learning with students conclude the material that has been learned.

CONCLUSION

Based on the results of data analysis and research discussion, it can be concluded that there is an influence of peer tutoring learning models on the learning outcomes of Grade VII students in English subjects. The effect can be seen from the difference in learning outcomes between the experimental and control classes. The average posttest value of the Experiment class was 6.098, while the Control class was 8.82. Based on hypothesis testing through the SPSS 16 statistical program, a sig (2-tailed) value of 0.05 was obtained ($0.003 < 0.05$) so that H_a was accepted and H_o was rejected. From these calculations, it can be obtained that the peer tutoring learning model can influence student learning outcomes by variables or other factors not examined by researchers.

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CONFLICT OF INTEREST

No conflict of interest reported by the authors

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