

APPLYING PEER TEACHING TECHNIQUE TO IMPROVE STUDENTS' GRAMMAR ACHIEVEMENT

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ABSTRACT

This study was aimed to improve the students' grammar achievement, especially in using conditional sentences by applying peer teaching technique. The subject of the study was the third semester students of English Education Study Program in academic year 2017/ 2018. This study was conducted by applying Classroom Action Research (CAR) which had been conducted in two cycles and each cycle consisted of three meetings. The instruments of collecting data were quantitative data (grammar test and questionnaire) and qualitative data (observation checklist and fieldnotes). The results of the test showed that the mean score of pre test was 15, formative test was 35 and post test was 63. The result of observation checklist and fieldnotes showed that the students were interested in teaching and learning conditional sentences by applying peer teaching technique. These indicated that there was a significant improvement of the students' grammar achievement by applying peer teaching technique.

Keywords: *Peer Teaching, Grammar Achievement*

INTRODUCTION

Grammar is one of the English language elements which is very important to be mastered in all skill of language such as speaking, reading, listening and writing. Grammar is different from Structure. In linguistics, grammar is the set of structural rules governing the composition of clauses, phrases, words in any given natural language. The term refers also to the study of such rules and this field includes phonology, morphology, and syntax, often complemented by phonetics, semantics, and pragmatics. In English grammar, sentence structure is the arrangement of words, phrases, and clauses in a sentence. The grammatical meaning of a sentence depends on this structural organization which is also called syntax or syntactis structure.

In spoken language, the grammatical rules are always prohibited because the most important thing in using the language is understandable. However in written language, the sentences must be grammatically correct and semantically accepted. In other words, the users of the language should follow the grammar rules without neglecting the semantic meaning. The following sentences explain when a sentence is grammatically incorrect but semantically or in structure is accepted and the vise versa. For example, (1) I *go* to school yesterday. If the sentence is seen from the structure view, it is correct because it follows the formation of making sentence, i.e. S+V+O, and also semantically accepted. However, it is grammatically incorrect. The verb which must be used in the sentence is *went* instead of *go*. (2) I went *with him* to schosol. In structure point of view it is unacceptable because *with*

him is adverb and must be placed after *to school*. However, from grammar point of view it is correct. Those examples show the difference of grammar and structure.

At the English Education Study Program at FKIP UNIKA students are mostly learning grammar in Structure Subject. So far the students of the third semester from the English Education Study Program had been taught Structure Subject with Direct Method. Based on the researcher's observation and experience in teaching English grammar, it is found that although the grammar points presented may well fit into a grammatical syllabus, the students still fail to use the language they have learnt to communicate in real-life situations. They could not understand mostly all subject of grammar even though they had learnt it several times. Therefore, teachers and lecturers need to seek an appropriate technique to improve students' grammar achievement.

Mastery English grammar becomes crucial for students in order to be a successful learner. One of the grammar points that needs attention in learning English is Conditional Sentence. It has been used to refer to a number of sentence types. Sometimes it is used as an assumption concept that encompasses all instances of delaying sentence. Sometimes it is used interchangeably with a particular kind of sentence deferment. In this case the Indonesian students should study the conditional sentence because this sentence is related to the implicit meaning on three types of conditional. (Armstrong et al. 2013:10)

To solve this problem, the writer proposes the use of Peer Teaching technique that can be applied in teaching grammar especially Conditional Sentences. Peer teaching which is also popularly known as peer tutoring occurs when students, by design, teach other students. It is a collaborative learning strategy in which students alternate between the role of tutor and tutee in pairs or groups. The beneficial results of peer teaching were reinforced in some articles and research studies. Nixon-John in Davenport (2011:7) state that the students enjoyed learning from their peers: What really helps are the weird discussion we have...We don't just talk about grammar or spelling; we help each other think." The study involving learning disabled students teaching social skills to each other showed the authors that social skill instruction taught by peers may be as effective and more efficient than when we taught solely by teachers. (Prater et al. in Davenport, 2011:8)

Puchner (2003) defines Peer Teaching as any activity carried out by a student or students that involves students taking on a teaching role in the school setting. There are some reasons why the researcher is interested in applying the technique. Slavin (1996) says that by applying Peer Teaching technique students are highly motivated when teaching other students, the availability of peer support leads to higher levels of participation in the learning process, student self esteem is increased, accountability expectations raises achievement. Due to these reasons, the researcher believes that peer teaching can improve students' grammar achievement. As stated by Duran (2010:47) that Peer teaching is also an excellent resource for promoting the mastering of the interpersonal competencies that are so crucial in the society of knowledge. In addition, peer interaction is a true learning engine.

Through peer teaching, help from peers increases learning both for the students being helped as well as for those giving the help. For the students being helped, the assistance from their peers enables them to move away from dependence on teachers and gain more opportunities to enhance their learning. For the students giving the help, the cooperative learning groups serve as opportunities to increase

their own performance. They have the chance to experience and learn that teaching is the best teacher.

There are some research findings related to the use of peer teaching for students. A previous one was conducted by Comfort and Mahon (2012) entitled “The effect of peer tutoring on academic achievement”. The findings indicated that peer teaching is a beneficial method of enhancing student achievement. Student tutors demonstrated significantly higher grades compared to the students that did not act as peer tutors. The second research was about the effect of peer teaching among students on their performance in mathematics. The findings also revealed that peer teaching among students increases the scores for some of the students in the subject. Based on the fact, the researcher is interested in conducting a research entitled Applying Peer Teaching Technique to Improve Students’ Grammar Achievement.

RESEARCH METHOD

This research is conducted by applying Classroom Action Research (CAR). Wallace (2006) states, “Classroom Action Research is a type of classroom research carried out by the teacher in order to solve problems or to find answers toward context-specific issues.” This study also involves four phases in each cycle which are essential as proposed by Kemmis and Mc Taggart (1988). Those phases are planning, action, observing and reflecting. Each cycle has three meetings. The action that the teacher does in first cycle influence the second cycle because it is needed to improve what missing is the first cycle. It makes the teacher prepares the action well so that the learning and teaching process can work better than before.

The process in action research is shown in the scheme taken from Kemmis and McTaggart (1988) as follows:

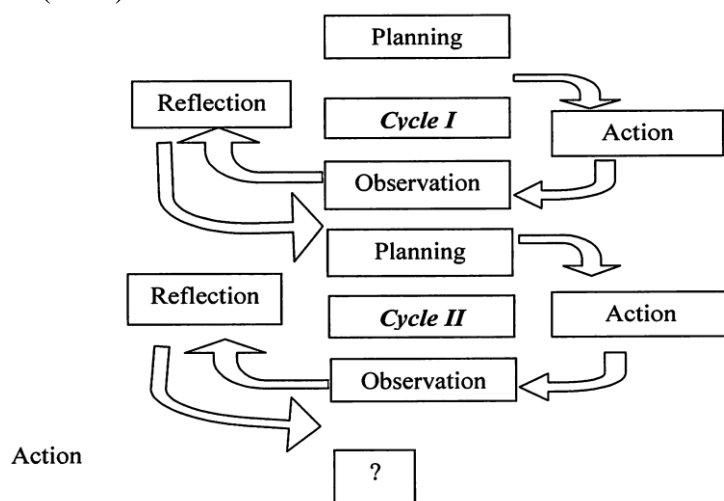


Figura 1. Research Method

The study was conducted at Faculty of Teachers Training and Education which is located at Jl. Setiabudi No. 479F Tanjung Sari Medan. There were two reasons why the researcher chose the faculty as the location of the research. First, the researcher works and teaches the students in the campus. The second, there has never been any research about improving students’ grammar achievement by using peer teaching technique. The study was conducted in January 2018.

The subjects of this study were the third semester students of English Education Study Program in the academic year of 2017/ 2018. There was one class consisting of 20 students. All of the students were taken as the subjects of the study. The reason for taking the class was because the class had learnt grammar and the researcher herself taught the class.

The sources of the data in this research are qualitative data and quantitative data. Qualitative data are obtained from the observation of the teacher and students. Quantitative data are obtained from the students' grammar test before, during and after the learning process. In this data collection, the researcher needs a collaborator. A collaborator in classroom action research is person who helps the researcher to collect the data.

The instruments used by the researcher to collect the data were test, fieldnotes, observation sheet and questionnaire. The tests used in the research consisted of pre test and post. They were used to measure the students achievement in grammar before and after applying peer teaching technique. The observation sheet was used to collect information during teaching and learning process in the classroom and the questionnaire was used to get the students' perception after learning grammar by applying Peer Teaching technique.

RESULT AND DISCUSSION

In the data analysis, there are two types of data which were analyzed to find out whether Peer Teaching Technique could improve students' grammar competence and the students' responses towards the application of Peer Teaching Technique. The study consisted of two cycles. Each cycle consisted of Planning, Acting, Observing and Reflecting.

The Quantitative Data

The qualitative data were taken from the result of pre-test, formative test and post test. Before conducting the treatment, the pre-test was given to measure the students' grammar achievement. In the last meeting of cycle 1, the formative test was given to measure the improvement of the students. Then, the post test was given to the students at the end of the whole cycles to measure the students' improvement after they were taught by using Peer Teaching technique. The result of the students' score in every test can be seen from the table and histogram of score interval and the frequency as follows:

Table 1. Pre-Test Score Interval

Score Interval	Frequency	Percentage
0 – 12	13	62%
13 – 25	5	24%
26 – 38	2	9.5%
39- 51	0	0%
52-64	0	0%
65 – 77	1	4.5%
78 – 100	0	0%
Total	21	100%

Scoring interval is found by applying this following formula.

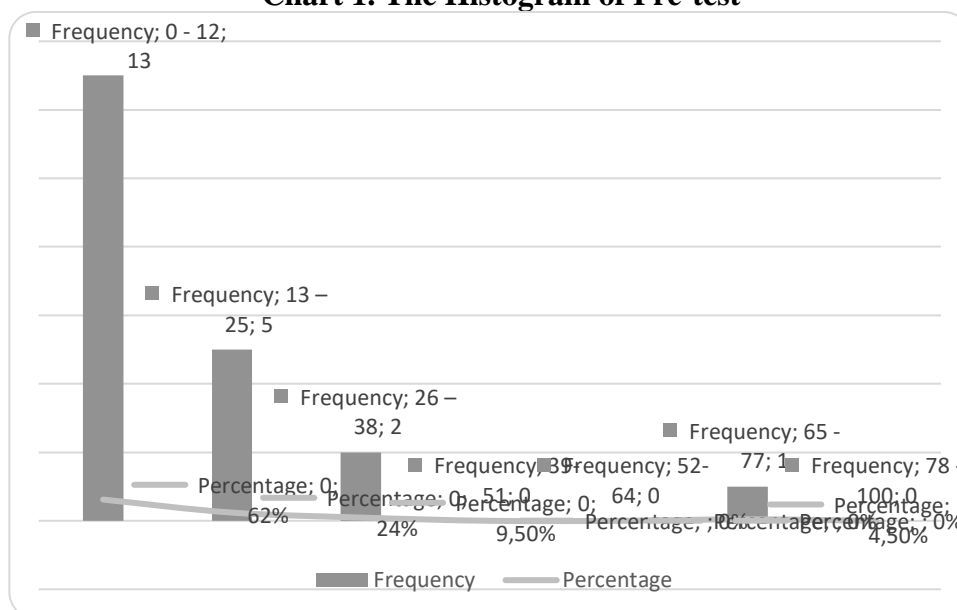
$$\text{Scoring interval: } (P)(P) = \frac{Xn-X1}{1+3,3 \log n}$$

Where:

- The division of distance (R) = Xn (the highest score)- X1 (the lowest score).
 In this case, Xn = 66, X1 = 0
- The sum of whole data (K) = 1 + 3,3 log n,
- n = the number of data, log 21 = 1,32
- Thus, $p(P) = \frac{Xn-X1}{1+3,3 \log n} = \frac{66-0}{1+4,35} = \frac{66}{5.35} = 12$

From the table of pre-test score interval and frequency, the researcher presented the data of pre-test in histogram.

Chart 1. The Histogram of Pre-test



From the histogram of pre-test above, the highest score interval is 0-12 (62%). In other words, there are 13 students who got pre-test score in the interval between 0-12. In addition, there are 5 students who got score in interval 13-25 (24%). There are 2 students who got score in interval 26-38 (9.5%), 0 student who got score in interval 39-51, 52-64, 78-100 and 1 student who got score in interval 65-77 (4.5%).

Table 2. Formative Test Score Interval

Score Interval	Frequency	Percentage
0 – 12	5	23.8%
13 – 25	2	9.5%
26 – 38	5	23.8%
39- 51	5	23.8%
52-64	2	9.5%
65 – 77	2	9.5%
78 – 100	0	0%
Total	21	100%

Scoring interval is found by applying this following formula.

Scoring interval: $(P)(P) = \frac{X_n - X_1}{1 + 3,3 \log n}$

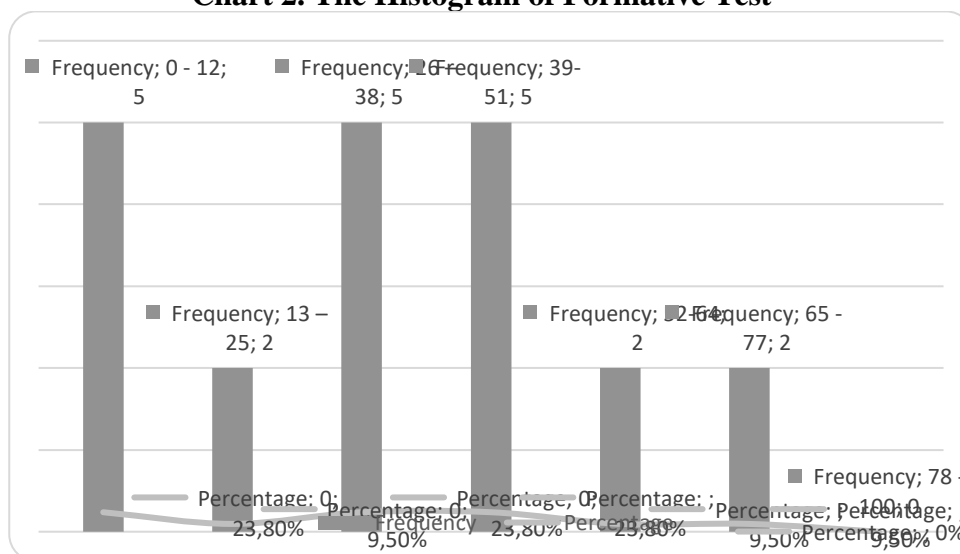
Where:

- The division of distance (R) = X_n (the highest score) - X_1 (the lowest score).
 In this case, $X_n = 74$, $X_1 = 9$
- The sum of whole data (K) = $1 + 3,3 \log n$,
- n = the number of data, $\log 21 = 1,32$

$$\text{Thus, } p(P) = \frac{X_n - X_1}{1 + 3,3 \log n} = p = \frac{74 - 9}{1 + 4.35} = 65 / 5.35 = 12$$

From the table of formative test score interval and frequency, the researcher presented the data of formative test in histogram.

Chart 2. The Histogram of Formative Test



From the formative test histogram above, the highest score interval is 65-77 (9.5%). It means that 2 students got formative test score in interval between 65-77. In addition, there are 5 students who got formative test score in interval 39-51 (23.8%), 26-38 (23.8%) and 0-12 (23.8%). There are 2 students who got formative test score in interval 52-64 (9.5%) and 13-25 (9.5%). However, there is 0 student who got score in interval 78 – 100 (0%).

Table 3. Post-test Score Interval

Score Interval	Frequency	Percentage
0 – 12	0	0%
13 – 25	2	9.5%
26 – 38	0	0%
39- 51	3	14.2%
52-64	2	9.5%
65 – 77	10	47.7%
78 – 100	4	19%
Total	21	100%

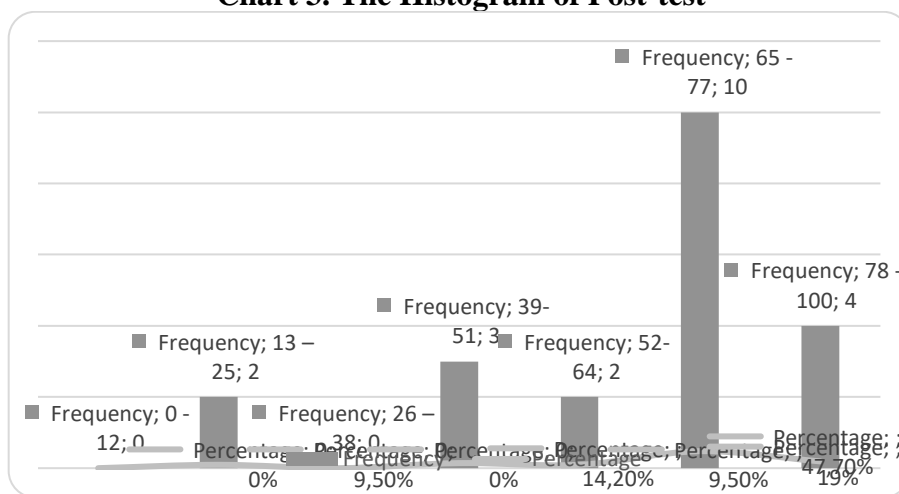
Scoring interval is found by applying this following formula.

$$\text{Scoring interval: } (P)(P) = \frac{Xn - X1}{1 + 3,3 \log n}$$

Where:

- The division of distance (R) = Xn (the highest score)- X1 (the lowest score).
 In this case, Xn = 80, X1 = 14
- The sum of whole data (K) = 1 + 3,3 log n,
- n = the number of data, log 21 = 1,32
- Thus, $p = \frac{Xn - X1}{1 + 3,3 \log n} = \frac{80 - 14}{1 + 4,35} = \frac{66}{5,35} = 12$

Chart 3. The Histogram of Post-test



From the post-test histogram above, the highest score interval is 78-100 (19%). In other words, there are 4 (four) students got post test score in interval 78-100. This is surprising number since in the pre test and formative test there were no students in this interval. Then, there are 10 students who got post test score in interval 65-77 (47.7%). The number of the students in this interval improved from the pre test and formative test. Previously, there was only one student in the interval in the pre test and there were only two students in the interval in formative test. There are 2 students who got post test score in interval 52-64 (9.5%), 3 students in interval 39-51 (14.3%), 0 student in interval 26-38 (0%), 2 students in interval 13-25 (9.5%) and 0 student in interval 0-12 (0%).

Further, to find out the students' mean score in each test, the researcher applied the following formula:

From the formula above, the results of students' mean score could be seen as follows:

- a. In the pre-test, the total score of students is $\frac{315}{21} = 15$
- b. In the formative test, the total score of the students is $\frac{716}{21} = 35$
- c. In the post-test, the total score of the students is $\frac{1327}{21} = 63$

To find out the percentage of the students' improvement score from the pre-test to post test, the researcher applied the following formula:

$$P = \frac{y1 - y}{y} \times 100\%$$

$$= \frac{35 - 15}{15} \times 100\% = 133\%$$

y1 = the mean of students' score in formative test

y = the mean of students' score in pre test

$$P = \frac{y2 - y}{y} \times 100\%$$

$$= \frac{63 - 15}{15} \times 100\% = 320\%$$

y2 = the mean of students' score in post test

y1 = the mean of students' score in pre test

The students mean and median score are presented as follows:

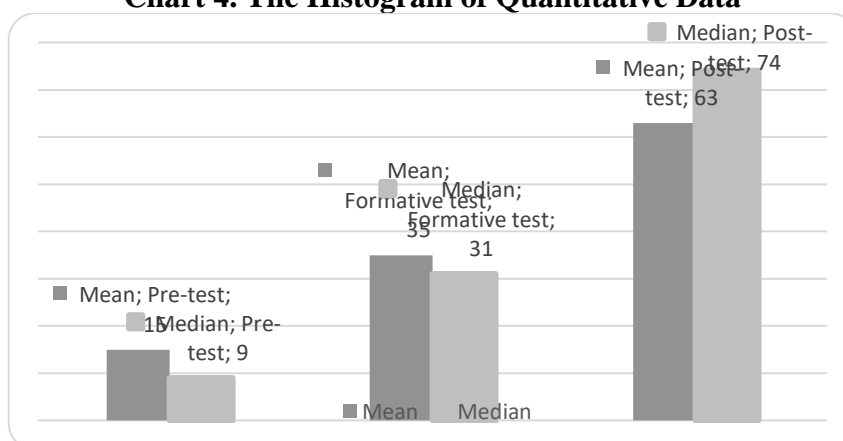
Table 4. Quantitative Data

	Pre-test	Formative test	Post-test
Mean	15	35	63
Median	9	31	74

The table shows that the students mean score in improve from pre test to formative test and post test. In pre test, the students' mean score is only 15, while in formative test it improves into 35 and finally it becomes 63 in post test. The improvement reaches more than 100%. The same thing happened with the students' median score. In pre test, the students' median is only 9, and it improves in the formative test into 31 and finally it becomes 74 in post test.

Thus, the percentage of the students' improvement score from the pre-test to formative test is 133% and from the pre-test to post test is 320%. In other words, the percentage improvement of students' score both from pre test to formative test and from pre test to post test is more than 100%. The following histogram shows the improvement of the mean and median in pre test, formative test and post test.

Chart 4. The Histogram of Quantitative Data



From the result of the students' score, it can be concluded that the students' mean score improve from pre test to formative test and to post test. The students' mean score in pre test is 15, in formative test is 35, and in post test is 63. Because of that, the students' median score also improve from 9 in pre test, to 31 in formative

test and 74 and in post test. Based on the students' score, it can be inferred that Peer Teaching Technique could improve students' grammar achievement.

CONCLUSION

Based on the finding and discussion, it can be drawn the conclusions as stated in the following:

1. Peer Teaching Technique can improve students' grammar competence. It was found out that the students' grammar achievement improved from pre test to post test after Peer Teaching technique was applied. It can be seen from the improvement of the students' score from pre-test to post test. The students' total mean score in pre test is 15, the formative test is 35 and post test is 63.
2. Based on the result of field notes, observation sheets, and questionnaire, the students feel and respond that Peer Teaching technique is very effective and appropriate to help them improve their grammar achievement especially in learning conditional sentences. The students' responses after learning grammar by using Peer Teaching Technique are elaborated as follows, more than 50 % students responds that they are interested in learning Conditional Sentences using Peer Teaching Technique, they felt their improvement, their motivation increase and they agree about the application of Peer Teaching Technique in any topic of grammar though less than 50% students responds that they do not know this technique before.

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