Using Reciprocal Teaching Method to Improve Female Students' Reading Comprehension Achievement at SMA Negeri Tujuh Prabumulih

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Abstract: Reading comprehension is a complex process that involves the combination of many competencies and abilities. In the context of EFL classrooms, the purpose of this study was to investigate the effect of reciprocal teaching on reading comprehension towards female students' reading comprehension achievement. The method used was four comprehension strategies: predicting, questioning, clarifying, and summarizing, to help students monitor their development of reading comprehension by themselves. A pre-test post-test non-equivalent groups is used as the experimental design. The population of the present study is first-year students at SMA Negeri 7 Prabumulih during the academic year 2020-2021. The population is 60 female students as sample by using random sampling. Both students of the experimental and control groups were exposed to pre and post-tests. Using the t-test for two independent samples, it is found that there is a statistically significant difference in favour of the experimental group. The results also showed that female students preferred this method for teaching learning reading compared to the conventional one. Therefore, teachers are suggested to consider using this method for teaching reading that instils the students on how to apply the four comprehension strategies used in reading.
Keywords: Reading comprehension, reciprocal teaching method

Reading is one of the language skills that learners should master, however, reading proficiency is difficult to attain without having adequate skills and comprehension (Spivey & Cuthbert, 2006). Good reading comprehension will be accomplished if learners have four reading abilities: determining the main idea, guessing word meanings, finding detailed information, and making inferences (Mikulecky & Jeffries, 1996). Reading comprehension can be defined as the linguistic process of reconstructing the intended message of a text by translating its lexical and grammatical information into meaningful units that can be integrated with the reader's knowledge and cognitive structures. Operationally, reading comprehension is defined as an active, interactive process that occurs before, during and after a person reads a particular piece of writing.

For Indonesian students, reading comprehension is likely to be a difficult skill to master. However, students are required to master reading and it is tested in the National Examinations. Achievement is the individual progress towards the instructional objectives of a specific study that takes place during a definable course of instruction. Achievement test is what language learners have successfully learnt with specific reference to a particular course, textbook, or program of instruction. The operational definition is that achievement refers to the scores gained by applying a test on students who have been involved in an experimental study.

Considering the fact above, the method of teaching English is very important to improve the students reading ability. A method can help students in learning English. So to improve the students' reading ability, the researcher uses reciprocal teaching method.

Reciprocal teaching is a strategy which enables the students to improve their reading ability by having a structured dialogue between the students and the teacher using the four strategies: summarizing, questioning, clarifying, and predicting. This technique requires the interaction among the students to enable them to gain the feedback of the activity by making a text to be discussed.

Reciprocal Teaching is as an instructional activity that takes place in the form of a dialogue between teachers and students regarding segments of text which is structural by the use of four strategies: predicting, question generating, clarifying and summarizing. Reciprocal teaching method is an "instructional method that involves guided practice of reading comprehension. In this method, the teacher' role is to provide modelling, scaffolding, feedback and explanation for the students". Operationally, Reciprocal Teaching is defined as an activity that takes a form of a dialogue between the teacher and his students with four specific reading strategies that are actively and consciously used to support comprehension: predicting, questioning, clarifying, and summarizing.

This study aims at empirically investigating the effect of using reciprocal teaching on female students' achievement in reading comprehension and improving students understanding of the reading comprehension texts.

The following null hypothesizes were investigated:
1. There is no statistically significant difference between the achievement of students who practice the reciprocal teaching technique and that of students who do not practice it.
2. There is no statistically significant difference between the experimental group students' achievement in the pre and post-tests of reading comprehension.

The present study was limited to first year female students at SMA Negeri 7 Prabumulih during the academic year 2020-2021.

LITERATURE REVIEW

The Nature of Reading Comprehension

According to Pang, et al. (2003), reading is an activity to understand written texts. Moreover, Snow (2002, p. 11) describes reading comprehension as "…the process of simultaneously extracting and constructing meaning through interaction and involvement with written language. It consists of three elements: the reader, the text, and the activity or

purpose for reading." A reader who wants to be a high proficiency reader should be able to comprehend the main idea, guess word meanings, find details and information, and make inferences (Mikulecky & Jeffries, 1996). Besides, having an adequate knowledge of vocabulary is needed (Rubin & Thompson, 1994).

The RTM Approach for Teaching Reading Comprehension

Palinscar and Brown developed the Reciprocal Teaching Method in 1984 due to their concern over comprehension issues. It was designed to improve students' reading comprehension at all levels and in all subjects (Blazer, 2007). Blazer (2007, p.1) further explains that "Reciprocal Teaching is an instructional approach to encourage learning of reading comprehension skills by students. Students are taught cognitive strategies that help them construct meaning from texts and simultaneously monitor their reading comprehension."

Reciprocal Teaching method uses four comprehension strategies: predicting, questioning, clarifying, and summarizing. These strategies help learners monitor their development of reading comprehension by themselves (Hosenfeld, et al., 1993). Students work in groups of four or five. As Palinscar and Brown (1984) said, a group will be divided into five roles which are the leader, predictor, clarifier, questioner, and summarizer. Additionally, Reciprocal Teaching method can be applied not only in teaching English but also in other subjects such as Mathematics and Physics to help students from elementary school to university level (Quirk, 2010). This method was developed to train students to apply strategies which are needed in the process of comprehension.

Choo, Eng and Ahmad (2011) conducted a quantitative study using quasi-experimental design and found significant improvement in the experimental groups post-test results taught using Reciprocal Teaching method compared to those of the control groups. Also, Rosenberger (2011) has reviewed the positive effects of the application of Reciprocal Teaching method. The participants were fourth grade learners from Camden County in the United States. Based on data from her study, she reported that Reciprocal Teaching method encouraged improvement and enhanced the reading comprehension abilities of her students.

Procedures Followed in Using the Reciprocal Teaching Method

Procedures for teaching reading using RTM as explained by Palinscar and Brown (1984) is quoted by the National Behavior Support Services as follows: Before the students learn how to apply this method in their own group discussions, the trainer should demonstrate

the model first. The trainer first presents all the strategies during reading. The trainer reads a piece of the text aloud and models the four steps: summarizing, clarifying, questioning and predicting with the students.

1. A group of four students is selected, and each is given a different role i.e. summarizer, questioner, clarifier and predictor.

2. Next, ask the group of students to read a paragraph of text. Recommend to them to do note taking such as underlining, coding, etc., while reading.

3. The student who is chosen as predictor helps his peers to connect previous part of the text by making a prediction based on the clues given from the title or illustrations before reading. Then, the trainer asks them to discuss the results of their predictions with their team. They are asked to read the text again in order to confirm their predictions. Next, the questioner's job is to help his group ask questions and answer questions about the text discussed in order to find out detailed information. The task of the summarizer is to help his group to find the main ideas based on his and his peers' points of view. The clarifier helps the group find unclear parts (words and sentence) and ways to solve these difficulties.

4. When the next part of the text is read, the students rotate their roles with their peers in their group. Again, they repeat the process consistent with their new role. Then the whole discussion process is repeated until the whole text has been read.

5. The trainer asks the students to keep on applying the four strategies until they have the ability to use these strategies independently.

The strategies above are included in reading strategies used by high proficiency readers to gain their understanding of a text. Moreover, the cognitive strategies (predicting, questioning, clarifying, and summarizing) developed in RTM are used frequently by strategic readers (Kherzlou, 2012).

METHOD

The Experimental Design is used to achieve the aim of the present study, a" pretest-posttest nonequivalent groups" design was chosen. See Table 1.

Table 1. The Experimental Design

Groups	Pretest	Treatment	Posttest
Experimental	T1	Reciprocal Teaching	T2
Control	T1	Traditional Teaching	T2

The design of this experiment includes the selection of the two groups randomly. Both groups were submitted to a pre-posttest. The experimental group was taught RC through using reciprocal teaching technique, whereas the control group was taught this area through the conventional way. The scores of both groups were compared to see if there is any significant difference between the two groups or not.

Population and Sample Selection

The population of the present study is first-year students at SMA Negeri 7 Prabumulih during the academic year (2020-2021). The sample has been chosen randomly from the population mentioned above. There were 120 students distributed alphabetically into six sections. These sections were unified into one section. Thirty students were randomly chosen from section (A B) for the pilot study. For the sample of the study, sections (C D) and (E F) were selected and assigned to be the experimental and the control groups respectively. The number of students in section (C D) was 34 and in section (E F) was 31. The total number of the sample was (60), thirty students in each group.

Equivalence of the Sample

The researcher tried to control some of the variables that may affect the experiment. These variables are: age, parents' education and students' scores in the pretest. The differences were tested at 0.05, level of significance, using the t-test formula for two independent samples and chi-square formula. It was found out that the subjects of the experimental and control groups were matched on the above mentioned variables since there are no statistically significant differences between the two groups. Tables 2, 3 and 4 summarize the results of the statistical treatment of the sample equivalence

Table 2. t-Test Statistics for the Age and Pre-test Scores Variables

Variable	Group	N	$\bar{x}$	s^2	df	Computed t-value	Tabulated t-value
Age in 0.39	E	30	18. 86	0.39	58	0.223	2.00
Years	C	30	18.9	0.57			
Pretest	E	30	34.1	91.05	58	1.487	2.00
Scores	C	30	32.9	92.6			

Table 3. Chi-Square Statistics for the Fathers' Education Variables

1	2	3	4	5	6	7	8	9	10	11	12
Fathers'	E	30	-	2	4	5	6	13			
Education	C	30	2	2	4	5	4	13	5	5.32	11.07
	Total	60	2	4	8	10	10	26			

Note:

1. Variable	4. Illiterate	7. Secondary	10. df
2. Group	5. Primary	8. Diploma	11. Computed Chi-Square
3. N	6. Intermediate	9. B.A	12. Tabulated Value

Table 4. Chi-Square Statistics for the Mothers' Education Variables

1	2	3	4	5	6	7	8	9	10	11	12
Mothers' Education	E	30	-	5	4	9	6	6			
	C	30	2	5	7	4	9	3	5	5.32	11.07
	Total	60	2	10	11	13	15	9			

Note:

1. Variable	4. Illiterate	7. Secondary	10. df
2. Group	5. Primary	8. Diploma	11. Computed Chi-Square
3. N	6. Intermediate	9. B.A	12. Tabulated Value

Instructional Program

Instruction started on the 1st of March 2020, lasted for 12 weeks and ended on the 31st of May 2020. The researcher taught both groups to control the teacher variables. The experimental group was taught through using reciprocal teaching technique, whereas the control group was taught by the lecture method. The lectures were arranged for both groups as four hours per week.

Test Reliability

The concept of reliability refers to the degree of consistency of the test measurement. One of the methods that can be used to find out test reliability is Alpha Cronbach formula. As a result, reliability coefficient of 0.747 is obtained. For rescoring the test, the researcher used the correlation between the scores of herself with that of another teacher's rating, in order to estimate the reliability coefficient of the test, Pearson's formula is used. The correlation between the first scores (the researcher) and the second scores (a second scorer), it is found to be 0.903. This shows that the test is quite reliable and acceptable

FINDINGS AND DISCUSSION

Findings

Table 6. t-Test Statistics for the Study Subjects' Scores in the Posttest

Group	N	$\bar{x}$	s^2	df	Computed t-value	Tabulated t-value	Level of Significance
E	30	45.8	173.35	58	4.251	2.00	0.05
C	30	32.7	114.45				

Table 7. t-Test Statistics of Pre-Posttests Scores of the Experimental Group

Group	N	$\bar{x}$	s^2	df	Computed t-value	Tabulated t-value	Level of Significance
Posttest	30	47.3	115.45	29	4.76	2.045	0.05
Pretest	30	35.3	97.66				

Discussion

In order to find out whether there is any significant difference between the two mean scores of the experimental and control groups in the total score of the post test, the t-test formula for two independent samples is used. As shown in table 6, the mean score of the experimental group is 45.8 and that of the control group is 32.7. By using the t-test, it is found that the calculated t-value is 4. 251 which is more than the tabulated value 2.00 at level of significance 0.05, which means a statistically significant difference in favor of the experimental group. This indicates that teaching by reciprocal technique is more effective than the presentation practice production teaching or the lecture method teaching. So the first null hypothesis that is presented earlier is rejected (see table 6).

The mean score of the experimental group in the pretest is found to be 97.66, whereas in the post test is found to be 115.45. The t-test is also used to show if there is any significant difference between the scores of the experimental in the pre-posttests scores. The t-test value is found to be 4.76 which is more than the tabulated value 2.045 at level of significance 0.05, which indicates that there is a significant difference between the two scores because of the influence of Reciprocal Teaching method. Thus, the second null hypothesis that is presented earlier is rejected (see table 7).

Based on the results, the post-test analysis has a clear evidence that students' achievement of the experimental group is significantly higher than that of the control group and using reciprocal teaching technique in teaching Reciprocal is more fruitful than teaching it through the conventional way. It happens because of the fact that Reciprocal Teaching is

able to encourage students to think about their own thought process during reading. It surely helps students learn to be actively involved and monitor their comprehension as they read.

By comparing the pre and posttests mean scores of the experimental group, it is found that there is a significant difference between the two mean scores because of the influence of Reciprocal Teaching. This is a significant indicator that the experiment had its influence on improving the first year students' achievement in Reciprocal Teaching.

CONCLUSIONS

Reciprocal Teaching method proved to be an excellent learning strategy for developing and enhancing students' Reciprocal Teaching skill. It is noticed that the use of the four strategies: predicting, questioning, clarifying, and summarizing by students throughout the reciprocal teaching technique enhanced their understanding and enabled maximum grasping of information by them from the given text. From the results analysis, it is proved that reciprocal teaching technique helped poor readers to develop their reading skill through the use of predicting, clarifying, questioning, and summarizing which enabled them to interact with the text to construct meaning.

REFERENCES

Blazer, C. (2007). Reciprocal teaching. *Research Services of Miami-Dade County Public Schools, 6*(9), 1-15.

Choo, T. O. L, Eng, T. K., & Ahmad, N. (2011). Effects of reciprocal teaching strategies on reading comprehension. *The Reading Matrix, 11*(2), 140-149.

Hosenfeld, C., Cavour, I., Bonk, D., Baker, L., & Alcorn, M. (1993). *Activities and materials for implementing adapted versions of reciprocal teaching in beginning, intermediate and advanced level of instruction in English, Spanish and French as a second language.* (ERIC Document Reproduction Service No. ED370 354). Retrieved on March 4, 2021 from http://files.eric.ed.gov/fulltext/ED370354.pdf

Khezrlou, S. (2012). The relationship between cognitive and metacognitive strategies, age and level of education. *The Reading Matrix, 12*(1), 50-61.

Mickulecky, B. S., & Jeffries, L. (1996). *More reading power.* New York: AddisonWesley Longman.

Palinscar, A. S. & Brown, A. L. (1984). Reciprocal teaching of comprehension fostering and comprehension - monitoring activities. *Cognition and Instruction, 1*(2), 117-175.

Pang, E. S., Muaka, A., Bernhardt, E. B. & Kamil, M. L. (2003). *Teaching reading.* Geneva: IBE, Publications Unit.

HOLISTICS JOURNAL, Volume 13, Number 1, June 2021, p-ISSN 2085-4021 | e-ISSN 2657-1897

Quirk, P. J. (2010). *Using Reciprocal and Learning Methods to enhance comprehension in Mathematics word problems*. (Master), Massey University, Palmerston North. Retrieved on April 4, 2021 from http://mro.massey.ac.nz/handle/10179/2247.

Rosenberger, A. (2011). *Reciprocal teaching and its effect on inference skills to enhance reading comprehension.* (Master), Rowan University, Glassboro, N. J. Retrieved on August 22, 2020 from http://dspace.rowan.edu/handle/10927/17 1?show=full.

Rubin, J., & Thompson, I. (1994). *How to be a more successful language learner: Toward learner autonomy*. Boston: Heinle & Heinle.

Snow, C. E. (2002). *Reading for understanding: Toward a research and development program in reading comprehension.* Santa Monica, C. A.: RAND Education.

Spivey, N.R., & Cuthbert, A. (2006). Reciprocal teaching of lecture comprehension skills in college students. *Journal of the Scholarship of Teaching and Learning, 6*(2): 66-83. Retrieved from https://www.researchgate.net/publication/228653944_Reciprocal_ Teaching_of_Lecture_Comprehension_Skills_in_College_Students