

## **READING DESCRIPTIVE TEXT COMPREHENSION IMPROVEMENT BY JIGSAW TEACHING TECHNIQUE**

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**Abstract:** The goal of this research was to decide how effective jigsaw improved the comprehension ability of reading descriptive text of class X students of Sultan Agung 1 Semarang Islamic High School in 2018/2019 academic year in understanding descriptive text. This research type was on a quasi-experimental design. The Senior High School students grade tenth as the population of this study which divided into two groups, X IPS 1 class developed as group of class control and X IPS 2 served as the group of experimental. The way to gather some data, Pre-test and post were used to evaluate the students' competence. Grounded on the results of the study, the mean score of pretest done in the control class was in the average of 52.93, while on the experimental class was happened 53.06. Treatment was implemented on the experiment class in about four times while the control class was educated by conservative teaching. After implementing four times of treatment, the mean score of the post-test of the control class rose up by 60.17. Accordingly, the post-test mean of the experimental class in the average score of 70.32. Based on the results of data analysis showed that there was a significant difference because of the T-test indicating that sig (2-tailed) showed in the number 0.000. Briefly,  $H_0$  was rejected but  $H_1$  was accepted. This means that jigsaw was operative to enhance reading comprehension ability of the students. Hence, Using jigsaw in understanding descriptive text could give better comprehension in students' reading skills.

**Key words:** jigsaw, reading comprehension, descriptive text

### **INTRODUCTION**

Achieving the four basic skills in learning English is significant for English learners, namely listening, speaking, reading and writing. One of them which significant to be learned is reading, as we know, serves as a mean to obtain information, experiences, ideas, and insights. Moreover, in this specific skill that is reading, there are some aspects which must be noticed such as the competence of students' comprehending text.

Reading comprehension for non-native students has faced many problems. Furthermore, to achieve successful teaching, a teacher should be able to find an exceptional technique or a method that can help to overcome the problems that the students encounter. The application of the method will facilitate the teacher in solving the problems. Hence, the method enables the students to gain a betterment. If the strategy can be applied properly, it is necessary for the teacher to modify the strategy into a new strategy which is in accordance with the students' situations including the materials they learn. In fact, it is one of the activities when the teacher applies the jigsaw technique in the classroom. The students are encouraged to take part in the teaching-learning process as written by (Yudhi & Fitri, 2016:2).

The activities on students' learning with jigsaw could add students' creativity and mobility because knowledge which they want to get will be in

independent process of learning. By their knowledge, they will have high motivation to know more from others. In this learning condition, students could be very active and enthusiastic to find something new in their learning with others. They do their activities in this jigsaw technique while reading in good mood and happiness. Then, the learning process was so fun and more inspired. In this teaching strategy, teacher can utilize students' potential in the learning process and make them active to show their performance in their individual learning.

Related to the opinions above, it can be declared that activities to communicate to others and oneself was reading language skill. This skill is mostly used by learners in understanding many knowledge form many resources. As mentined by Pardo (2004) some actions which are in sequenced are entailed in comprehending reading text by some readers. The readers could make communication by constructing meaning from a text and interacting to carry out messages in the form of a text to be understood.

The newest texchnique should be taught to the students, then this could make the students fun and easy to recall the material, especially in skill of reading comprehension. In this case, the writer wants to introduce a new method of learning to read descriptive texts using the jigsaw technique. The reason why the writer chooses this topic is that I believe that the Jigsaw Technique can be developed as one of the interesting teaching techniques in reading comprehension skills, students can be expected to be more enthusiastic, enjoyable and cooperative in learning English.

In reading comprehension, there are some factors that probably lead to a lot of students to feel difficult in comprehending various textbooks. The first factor is related to the limited vocabulary that the students master. Students will not be able to easily digest the information conveyed in the reading text if they lack vocabulary mastery. The second factor is linked to the students' capability in terms of recognizing grammar since being able to compete at grammar also affects the students in understanding texts, such as sentence patterns, syntax, and so forth. Students should be familiar with those terms above. Finally, the last factor concerns students' inactivity related to their reading habits. This phenomenon can be viewed from their action when they are assigned to read a text. In fact, they are not interested in reading and exploring more about the information the text provides.

There are various techniques that a teacher can implement when they teach at school, and the jigsaw technique is the alternative. Jigsaw was defined as a strategy that enabled students to work together and assist one another in terms of handling new materials in the learning process. When interacting in the group, they can actively take part in playing their roles namely teaching the other members of the group related to the materials they learn. On the other hand, the development of the jigsaw technique as cooperative learning was carried out by Aronson is a specific kind of collaborative learning. Hence, the teacher can utilize this technique in teaching reading, writing, listening, and speaking (Lie, 2008).

According to Gladstone (2013), the jigsaw technique becomes a cooperative learning strategy leading the students to be competent at understanding and

mastering varied subjects in which they eventually transfer the knowledge they have acquired by teaching the other students. This strategy improves learning, retention, and engagement. Meanwhile, (Yudhi & Fitri, 2016:4) stated that jigsaw concerns on a model learning technique of cooperative learning in which students learn materials in a small group comprising 4 or 5 students with varied inerrability and cooperation in positive interdependence. They also have some kinds of responsibility for conveying their tasks for the members.

According Mari & Gumel (2015) the following steps illustrate the ways how to use jigsaw technique in teaching descriptive text. At first, divide students into groups consisting of 4 or 5 members for each group, secondly, provide a specific text for each member of the group and every student attain dissimilar topic, rearrange the class into expert group, give students an assignment namely discussing the topic that functions as an expert in their part of the text, then organize the class into home groups after each student gains a summary of a part of the text or of one topic, and finally assign each student to give a presentation and share her or his part of the text to the group, in order to get the entire story.

The researcher found one similarity and little differences with the future research, which discusses about jigsaw in reading comprehension skill. The first previous study was conducted by Adams, Holy Child College of Education "Using Jigsaw Technique as an Effective Way of Promoting Cooperative Learning Among primary six pupils in Fijai". This study was conducted in 2013. In his study, the research design was an action research design. The study focused on improving cooperative learning by applying the Jigsaw technique in Basic six of Holy Child Practice Primary School. The result of this research demonstrated that jigsaw is categorized as a beneficial technique. The dissimilarities between this research and the prior study above are the subject of the research. The resemblance of this research with the prior study above is that both of them focus on using the jigsaw technique.

The second previous study was from Nasrin Khaki (2014) entitled "Improving Reading Comprehension in a Foreign Language: Strategic Reader". The case of the first previous study tells about all-female intermediate EFL students between 14 and 39 years old. This study was designed by utilizing quasi-experimental research. The result of this study showed that it is crucial for English teachers to enhance their students' reading comprehension skill by implementing a proper strategy. The distinction between this research and the previous study above is the subject of the research, and the research methodology used in it is also the instrument of the research. The similarities of this research are focusing to resolve the problem on the students' reading comprehension skill.

The third previous study was carried out by Yudi & Fitri. This research was conducted in 2016 entitled "The Effectiveness of Jigsaw Learning Strategy to Improve Students' Reading Ability in Senior-high school students around Semarang". This study investigated the application of Jigsaw learning Strategy in term of enhancing students' reading competence. This study used two classes which are called the class of experiment and the class of control. The result of this research indicated that Jigsaw learning strategy was effective in improving the reading capability of EFL learners. The similarities between this research and the

previous study above are that, both of them focus on the effectiveness of using a jigsaw to improve students' reading.

From some previous studies presented above, the writer draws a conclusion that the jigsaw technique serves as an alternative way to assist students easier in reading. Some similar aspects from the previous studies above and the present study is the use of jigsaw technique to improve reading comprehension skill by using a quasi-experimental research design and to find out whether jigsaw technique can help reading comprehension or not. Some other differences between the previous study and this study are the subject of the study and the instrument of the study in which descriptive text became the main instrument.

## **METHOD**

This study is aimed at providing a description on the impacts of the treatment of using jigsaw on students' reading comprehension. The research design consisted of pre-test, treatment and post-test, adopted from Creswell, (2004). This study investigated the use of jigsaw with experimental research design, categorized as a quantitative method. As suggested by Airasian & Gay (2000), the quantitative method is grounded on the activity of collecting and analyzing numerical data, commonly attained from questionnaires, tests, checklist, and other paper and pencil instruments.

The population of this study was the tenth graders of SMA Islam Sultan Agung 1 Semarang in academic year 2018/2019. There are two groups involved in this study, namely: experimental group (treatment class) and control group (non-treatment class) of the tenth graders students. The researcher chosed a random sampling by plotting two classes at the tenth group from five groups which was one to be an experiment group and the other as the control group. A test was applied to be the instrument in terms of obtaining the data in this study. Before doing a pre-test, the researcher tried out the students to identify the validity and reliability of the test. In addition, a pre-test was utilized to provide some information related to previous reading proficiency of the study of the students from both groups.

The instrument for gathering data in this study was a test in the form of reading descriptive text. Pre-test was the test which was performed before undergoing the treatment. This objective of this test was to identify the students' capability before carrying out the treatment. Meanwhile, post-test signified the test which was undergone after performing the treatment, and its objective was to identify the success of the treatment. Content validity was one of the validity types employed in this study. It also related to whether the test was suitable with students' ability based on the suitable material and content by crosschecking the result. As pointed out by Airasian & Gay (2000), content validity played a salient role in terms of achievement tests. Then, the calculation of the test reliability used Cronbach's Alpha formula.

In this study, statistic computation through SPSS (Statistical Package for the Social Sciences) program was employed to perform the analysis and to process the data. The researcher performed an analysis on the standard by applying sample Kolmogorov-Smirnov. The researcher ultimately used the t-test in order to

investigate whether the treatment effect was significant or not. The hypothesis was analyzed at significant level of 0.05. If it is found that the sig. > 0.05, it indicated that  $H_0$  was rejected, while  $H_1$  was accepted. If the sig. comprised <0.05, it denotes that  $H_0$  is accepted, while  $H_1$  is rejected.

The try out test was done to determine the proper sample that can be used in this research. The try out was conducted by providing 40 items in multiple choices questions, and it took 45 minutes to finish the test. In doing tryout test, the researcher did the validity and reliability of the instrument. The researcher utilized content validity to perform an analysis and identify the test validity and used test items reliability indicating that the researcher made to assess the students' reading ability. Cronbach's Alpha in SPSS 21 software was used to measure the test reliability. According to Harris (2007), if the result is over 0.60, it indicates that the instrument is reliable.

## **FINDINGS AND DISCUSSION**

The tenth grader students of senior high school at Semarang became the subjects of this study. The study was carried out by involving two classes. They were the same grade in which X IPS 1 grouped as the control group, while X IPS 2 grouped as the experimental group. The control class comprised 29 students, the experimental class covered 31 students, and the try out class also comprised 31 students. In this research, the researcher conducted the study and attained the entire data from many kinds of devices including the reading test. The researcher performed an analysis on the data meticulously and precisely in which it was accomplished to sum up the research objectives. The experiment entailed 3 series of actions such as pre-test, treatment, and post-test. However, there was a distinction in the control class since pre-test, conventional teaching, and post-test were applied.

The test encompassed a text consisting of 40 multiple choice points with 4 alternatives in each point. The students were asked to do the test in 45 minutes by crossing one correct answer from four possible responses, A,B,C, or D. This research attempted to identify the effective level of jigsaw technique in teaching reading comprehension skill to the tenth grades. The writer utilized this technique since it was not difficult to be employed. Jigsaw technique can be very pleasing and interesting for students. This is a new strategy to immerse in the reading comprehension. Also, it is appropriate to be applied since this technique generates innovative ways in teaching reading. Through the implementation of jigsaw technique in the teaching activity, the teacher can motivate students and the students hoped to be interested to learn descriptive text. That is why students can enhance their reading comprehension effortlessly.

The writer used experimental and control group to determine the emergence of significant difference in teaching reading comprehension between employing jigsaw technique and conventional teaching technique. As the requirements of quasi experimental research, the researcher undertook the things that must be fulfilled as the followings: This part consists of validity and reliability.

The items of the test as the instrument of the research was valid and approved by the advisor named Nur Ekaningsih, S.Pd, M.Pd and the English teacher named Salimatin Mufidah, M.Pd. Referring to the two validation from the two expert, the test instrument which the researcher used on the pretest and post test was valid. This was proved by the statement on the validation rubric that questions are concise and there are no unnecessary words. From all items on the validation rubric, the validators decided that the instrument was exceeds expectations because there were eight items with 4 score and only 2 items with 3 score. Finally, the validation of the instrument was valid.

The researcher grounded on the computation, the reliability of the test comprised 0.998. The result of the reliability was over 0.60. It exhibits that the instrument was highly reliable. The reliability result is denoted below:

Table 1. Reliability Statistics

Cronbach's Alpha	N of Items
.998	20

The researcher made a comparison between the data of the control and experimental groups demonstrated by the following table.

Table 2. Test Descriptive Analysis

		Group Statistics				
		Group	N	Mean	Std. Deviation	Std. Error Mean
Pretest	Control		29	52.9310	4.72781	.87793
	Experimental		31	53.0645	4.77448	.85752

Table 2 denoted that there were 2 groups: the control and the experimental groups. The experimental group comprised 31 students, while the control group covered 29 students. The pre-test mean's score for the control group accounted for 52.93, meanwhile the experimental group comprised 53.06. The standard deviation of the experimental group was 4.774 and 4.727 for the control group. The researcher used Kolmogorov-Smirnov to determine the standard normality of the groups exhibited in the following table.

Table 3. The Normality Standard

		Control Pretest	Experimental Pretest
N		29	31
Normal	Mean	52.9310	54.6774
Parameters <sup>a,b</sup>	Std. Deviation	4.72781	4.81932
Most Extreme Differences	Absolute	.221	.204
	Positive	.181	.183
	Negative	-.221	-.204
Kolmogorov-Smirnov Z		1.190	1.136
Asymp. Sig. (2-tailed)		.118	.151

a. Test distribution is Normal.

b. Calculated from data.

The above table showed that the data was normal because the Sig. (2-tailed) in a number of 0.118 and 0.151 which mean both number are higher than 0.05. This showed that the data was normal.

Table.4 . Descriptive Statistics to Compare Results of Control and Experimental

	N	Minimum	Maximum	Mean	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error
Control	29	45.00	75.00	60.1724	1.39233
Experimental	31	60.00	80.00	70.3226	1.03528
Valid	N 29				
(listwise)					

The independent sample t-test showed the data on the Sig. (2-tailed) in the number of 0.000 and the experimental group was 70.32 and control group comprised 60.17. In other words, the students' condition after the treatment had different means score. This means H1 was accepted while H0 was rejected. It demonstrated that there was a significant difference in the mean scores for the the students who learned through the jigsaw and conventional techniques. The test was aimed at knowing if jigsaw is effective or not in advancing their reading comprehension skill.

This study found that jigsaw positively affected students in reading comprehension for the tenth graders of senior high school. The results of the research have proven it. Initially, the pre-test was undergone to examine the early situations the students faced. The results demonstrated that the students were in the similar situations at first. After having the pre-test, the treatment was perpetually undertaken for the experimental group students. Post-test emerged as the last step carried out to determine the results after the students had their treatment.

In the descriptive analysis data on table 4.3, it denoted that there two groups were namely control and experimental groups. The control group involved 29 pupils and the experimental group comprised 31. The mean's score of control group was written in 52.93. In the meantime, the experimental group comprised 53.06. Besides, in the table (4.4), the normality test results of pre-test exhibited

that sig. (2-tailed) = 0.118 in the control group and 0.151 in the experimental group. It demonstrated that the pre-test in control and experimental groups was normal due to the fact that both of the values were over 0.05. Moreover, table (4.6) denoted that the importance score of post-test between both groups control and experimental was  $0.204 \geq (0.05)$ . Accordingly, the analysis of data within the post-test of control and experimental group were homogenous or their variety was not dissimilar.

After attaining the results of homogeneity test, the researcher carried on examining the post-test results from the control and experimental groups by using T-test. In table (4.7), the independent sample t-test for post-test demonstrated that t-value comprised 5.901 and the degree of freedom (df) = 58. Also, the Levens' Test for Equality of Variances column denoted that the sig was  $0.204 > 0.05$ . In other words, there was a resemblance in the sample.

The sig (2-tailed) of t-test for equality of means =  $0.000 < 0.05$  indicates that there is a rejection for  $H_0$ . Conversely, there is an acceptance for  $H_1$ . In other words, substantial difference occurs between two mean scores of the experimental group and control group after doing some treatments. Then the Table (4.9) about Descriptive Statistic of Post-test showed that the mean's score of the control group accounts for 60.17 and the experimental group comprises 70.32. It denotes that the capability of both groups was not the same after dissimilar treatments were undergone.

In brief, the researcher summed up that applying jigsaw in comprehending the reading in descriptive text was effective for students. Last but not least, this study found that jigsaw technique affects the reading comprehension namely in reading a text of descriptive type for the tenth grade of senior high school.

## **CONCLUSION AND SUGGESTION**

### ***Conclusion***

Grounded on the results of the data analysis, improving reading comprehension skill using text descriptive can be effectively achieved by using jigsaw technique. It is proven by viewing the average of mean's score for experimental group and control group in the post-test. The mean of the control group is merely 60.17. Meanwhile, the experimental group mean's score comprises 70.32. It is evidenced by the T-test results of analysis in which the sig (2-tailed) was  $0.000 < 0.05$  indicating that there is a significant difference in the results of the post-test in the experimental group. These results demonstrate that significant difference occurs between the experimental and control groups. In other words,  $H_0$  is rejected and  $H_a$  is accepted. Furthermore, there is a significant difference in the mean score of the reading test accomplishment between the students learning through jigsaw and those who learn through conventional techniques.

Jigsaw technique is considered effective in terms of teaching reading comprehension since it enables students to accomplish the test easily, particularly



in terms of finding the gist of a text. Besides, students become more enthusiastic in learning English.

### ***Suggestions***

After carrying out the research, the researcher gives some suggestions presented below.

For the Teachers, Jigsaw technique may be utilized by the teachers in teaching reading a descriptive text since this technique gives stimulation in the students' mind when they read a descriptive text. When applying jigsaw technique, brainstorming can be used to assist students in developing their notions in reading descriptive text. Moreover, students can systematically and chronologically shape what they perceive by utilizing this technique.

For Students, in the activities of teaching and learning, education quality may be improved by applying jigsaw technique. By applying this technique, it is expected that the materials students learn will be understood without difficulty. As a result, the students will actively take part in giving an answer towards the given questions. In addition, students' skills in terms of understanding, developing, and elaborating the gist of the text will be improved.

The Next Researchers, the researcher expects that jigsaw technique may be employed in teaching the other competences in learning English such as: learning grammar, reading, writing, vocabulary, and so forth. Also, there is a great expectation that some researchers in the future have some notions in developing this technique for the other fundamental skills in English.

### **REFERENCES**

- Aebersold, J., & Field, M. (1997). *From reader to reading teacher: Issues and strategies for second language classrooms*. Cambridge: Cambridge University Press.
- Airasian, & Gay, L. G. (2000). *Educational research: Competence for analysis an application* (6 th ed). New Jersey: Merril Prentice Hall.
- Airasian, P. (2000). *Educational Research Competencies for Analysis an Application* (6 th ed). (K. M. Davis, Ed.) New Jersey: Prentice-Hall, Inc.
- Anderson, M. a. (1998). *Text Types in English 3. Sellanor: Macmilan Education Australia PTY LTD.*
- Anita Lie. (2008). *Cooperative Learning*, 55.
- Arikunto. (2008). *Penelitian Tindakan Kelas. Penelitian Tindakan Kelas*.
- Arikunto, S. (2006). *Prosedur Penelitian: Suatu Pendekatan Praktik. 7th Ed. Jakarta: Rineka Cipta.*

- Azshar, M. (1993). *Proses Belajar Mengajar Pola C.B.S.A. Surabaya: Usaha Nasional.*
- Best, J. W. (1981). *Research in Education. New Jersey : Prentice- Hall, INC.*
- Bima M, B. and C. K. (2005). *Let's Talk. Bandung:Pakar Raya.*
- Brown, A., & Palincsar, A. (1984). Reciprocal teaching of comprehension-*fostering* and comprehension monitoring activities. *Cognition and Instruction*, 1(2) 117-75.
- Creswell, J. W. (1994). *Research Design Qualitative and Quantitative Approach. California: Sage Publication, Inc.*
- Farrel, T. S. C. (2001). *Teaching reading strategies: It takes time. Reading in a Foreign Language. 13(2), 631-46.*
- Hammond, Jenny, et.al. (1992). *English for Social Purposes. Sydney: Macquarie University.*
- Harris. (2007). *Standart Reliability.*
- Harris, D. P. (1969). *Testing English as A Second Language. USA: McGraw-Hill, Inc.*
- Hedge, T. (2008). *Teaching and learning in the language classroom. Oxford: Oxford University Press.*