



THE INFLUENCE OF JIGSAW TECHNIQUE ON IMPROVING READING COMPREHENSION FOR STUDENTS OF NON-ENGLISH DEPARTMENTS STKIP AL MAKSUM

Donny Adiatmana Ginting¹⁾*, Ellisa Haddina²⁾, Khairunnisa Br. Malau³⁾
^{1,2,3}English Department Study Program, STKIP Al Maksum

*Email : donyadiatamaginting@stkipalmaksum.ac.id

ABSTRACT

The main problem of students in non-English departments is that they hardly find the theme, main idea and are bored in reading activity. The aim is to find the influence of the jigsaw technique on improving student's reading comprehension in non-English departments. The research method is pre-experimental research with one group design pretest and posttest. The sample is 45 students in an elementary education study program. The instrument is multiple choice with ten questions. The data analysis shows the questions are valid and reliable. The mean score of pretest and posttest shows significant differences. Based on paired dependent t-test, the value is 0.000 lower than 0.05 as level of significance and therefore, there is the influence of jigsaw technique on Improving Reading Comprehension for Students' of Non-English Departments. Based on findings, the jigsaw technique is suggested to be used in teaching reading for non-english departments.

Keywords: jigsaw, reading comprehension, non-english department

V. Introduction

Reading is an ability that pupils must learn at an early age. Reading holds a prominent position among the four language abilities. It is a fundamental tool for studying one of the most vital abilities in everyday life. Students must develop reading skills to understand a foreign language, particularly English. (Adiatmana & Hassan, 2021) stated that "reading is an active skill because it requires readers to speculate, evaluate, and inquire about information contained in passages. Proficiency in a foreign language, especially reading, is necessary for academic success and personal growth".

Based on observation in the second semester of Elementary Education Study Program, STKIP Al Maksum, the author found that students encountered difficulties understanding a text during the reading activity due to unfamiliar vocabulary and a lack of background knowledge about the topic. The main challenge that students face when reading is understanding a passage and determining its main idea in some reading text, such as descriptive and report text.

The above problem has to be overcome by proposing a method or technique in teaching reading and therefore, the author proposes a jigsaw technique. (Yen Hai, 2012) stated that “jigsaw technique is a cooperative learning technique where students work in groups to teach each other about something. Jigsaw can be applied flexibly in different contexts of classrooms. Jigsaw is one of the parts of cooperative learning that supports students to be active socially in reading activity. (Kessler, 1992:8) stated, “Cooperative learning is group learning activity organized so that learning is dependent on the socially structured exchange of information between learners in groups and in which each learner is held accountable for his or her own learning and is motivated to increase the learning of others”. The purpose of the jigsaw technique is to help students from varied backgrounds to collaborate efficiently and collaboratively. The jigsaw learning technique enhances the effectiveness and variety of reading and learning activities. mentioned some advantages of applying jigsaw technique in the classroom.

Several researches have been conducted about jigsaw in teaching reading, there are (Ahmada, 2019; Herman et al., 2020; Hidayati & Rohayati, 2017; Namaziandost et al., 2020). The previous research revealed that jigsaw technique was effective in teaching reading, particularly teaching reading comprehension. Many varieties of activity when the students study reading comprehension by using jigsaw technique. In addition, the students may share their result of reading to the classmates and cooperatively when they try to find the topic and meaning of difficult vocabularies in the text.

Previous research used jigsaw technique to the students in either junior or senior high school, but, the previous research lacked of research used jigsaw to the higher education, particularly students in the non-English department. Therefore, this research is proposed by the author as the breakthrough to know the effect of using the jigsaw technique on the students’ reading comprehension of non-English departments.

In conclusion, the aim of this study is to find the influence of jigsaw technique on the students’ reading comprehension of the non-English Department, STKIP Al Maksum. The author hopes this study can be useful as a reference to another researcher to conduct the research about reading comprehension. Furthermore, this study can be used as a guide or reference for English teachers to teach reading comprehension by applying jigsaw technique.

W.Literature Review

Besides listening, speaking, and writing, reading is one important skill that should be studied by the student. The experts define the term of reading comprehension in various ways. (McGeown et al., 2020) stated “reading comprehension is the interaction between reader, text, and task characteristics within a sociocultural context. This model highlights the context-dependent nature of comprehension. A person may achieve a clear understanding of a text when the text is easy and the task simple (e.g., answering multiple choice questions), but the same reader may struggle when encountering complex text on an unfamiliar topic. (John Henry, 2021) stated “Reading comprehension is the ability to read text, process it and understand its meaning. It relies on two, interconnected abilities: word reading (being able to decode the symbols on the page) and language comprehension (being able to understand the meaning of the words and sentences). In addition, (Oakhill et al., 2014) stated that “Reading comprehension is important, not just for understanding text, but for broader learning, success in education, and employment. It is even important for our social lives, because of email, text, and social networking sites. Reading comprehension is a complex task, which requires the orchestration of many different cognitive skills and abilities”.

According to the above argument, students must improve their reading abilities, particularly their reading comprehension, because reading comprehension is critical for education and social life. Students who are proficient in reading comprehension will have little difficulty to find the theme and main idea in the text.

(Namaziandost et al., 2019) stated that “cooperative learning is defined as a set of instructional methods through which students are encouraged to work on academic tasks. It also refers to a teaching technique where students work in groups on a certain activity in order to maximize one another’s learning and to achieve certain goals”. Furthermore, (W. Johnson et al., 2006) stated “ the teaching and learning process using CL techniques is a learner-centered paradigm that has gained popularity as an alternative to the lecture-based paradigm. Much of the current research revolves around the notion that CL has positive effects on various outcomes”. Student centered is a basis of cooperative learning in order to support students more actively and can collaborate with other students to solve particular problems and to study together.

There are methods in cooperative learning, such as Think Phare Share (TPS), STAD (or Student-Teams-Achievement Divisions), and Jigsaw. But this research decides to use Jigsaw as a technique to teach reading. (Slavin & E., 2008) stated “jigsaw technique is a cooperative learning model that consists of several member in one group that responsible for the lesson materials and be able to teach the topic to other member of group, by discussion activities which can help the students to be active in the class, such as; reading the text, hearing the teacher reading the text, get new of vocabulary”. In addition, (Meng, 2010) states “jigsaw method makes it suitable for enhancing two essential and related teaching goals that contribute to reading comprehension: developing students,, metacognitive awareness, and learning the content while teaching it to peers in the small group”. (Kessler, 1994) states the benefits of applying jigsaw technique consists of: a.)Provide opportunities for students to work in racially and culturally mixed groupings., b.) Provide an excellent learning environment for the acquisition of language through relevant content. c.) Support the communicative approach in language teaching. d.) Develop students’ skills of analysis, comparison, evaluation, and synthesis of information.

X. Research Method

This research is quantitative research with pre-experimental research as the research design proposed by (Ary, 2010). (Ary, 2010) “pre-experimental research has one-group pretest–posttest design that consist of three steps: (1) administering a pretest measuring the dependent variable; (2) applying the experimental treatment X to the subjects; and (3) administering a posttest, again measuring the dependent variable”.

Pretest	Independent	Posttest
Y_1	X	Y_2

Picture 3.1
pre-experimental design

The research procedure is in the pretest, the author teaches reading directly to the students without using jigsaw technique. The author used descriptive text as reading material. After teaching reading, the author gives a test to measure the students’ comprehension about the reading material in the pretest. Next, in the second meeting, the author instructs the students to read the text and then discuss it together in order to

identify the text. The reading then explains the definition, general structure, and language elements of the descriptive text. Following that, students work in pairs of five to analyze the generic structure and linguistic features of a descriptive text given by the lecturer. The students present the jigsaw learning technique at the second meeting. Following that, the reader gives a text to the students and tells them to read it briefly. The students are then asked to analyze the text read by the instructor in order to identify the text using the jigsaw learning paradigm. The pupils are then divided into groups of five. Finally, students are asked to assess the generic structure and linguistic aspects of a descriptive text presented by the jigsaw learning technique. In the posttest stage, after presenting the descriptive text using the jigsaw learning technique, the author gave a test to students in order to determine whether the jigsaw technique is effective in improving students' reading comprehension or not.

In this study, the population is 90 students in the second semester of Elementary Education Study Program, STKIP Al Maksum. The author uses simple random sampling as a procedure to determine the sample; the simple random sampling is as a part of probability sampling that defined as the kind of sampling in which every element in the population has an equal chance of being selected.(Ary, 2010). The stages of selecting samples are the author prepares ninety papers which in each paper is already written number one until ninety and the author shares the papers to the students. After that, the students open the paper. Each student gets odd numbers decided as the sample of research and therefore, the sample is 45 students of Elementary Education Study Program, STKIP Al Maksum.

The instrument is a multiple choice consisting of ten questions. The correct answer has ten points and the incorrect answer got zero points. The test will be shared to the students in the pretest and posttest stage. To know the validity of the instrument, the author uses correlation product moment. Moreover, to know the reliability of the instrument, the author uses alpha cronbach testing.

The score in pretest and posttest is collected and compared by applied paired dependent t-test with the level of significant 0.05. The paired dependent t-test is used to know whether the jigsaw technique influences the students' reading comprehension. If the paired t-test score is $\leq 0,05$, there is the influence of jigsaw technique on the students' reading comprehension. In contrast, . If the paired t-test score is $\geq 0,05$, there is no influence of jigsaw technique to the students' reading comprehension. The pretest and posttest data are analyzed by using The SPSS 25.

Y. Discussion

First, the instrument is analyzed by using correlation product moment with the level of significant 0,05 ($\alpha=5\%$), the value of r_{table} is 0.248. The value of r_{table} compared with $r_{counted}$ is to determine whether each question is valid or invalid.

Question	$r_{counted}$	r_{table}	Status
Question 1	0.750	0.248	Valid
Question 2	0.706	0.248	Valid
Question 3	0.988	0.248	Valid
Question 4	0.650	0.248	Valid
Question 5	0.301	0.248	Valid
Question 6	0.988	0.248	Valid
Question 7	0.671	0.248	Valid

Question 8	0.988	0.248	Valid
Question 9	0.988	0.248	Valid
Question 10	0.870	0.248	Valid

Table 4.1

Result of validity testing

Based on the above table, score of each question or r_{counted} is bigger (\geq) than r_{table} and therefore, ten questions are valid.

Reliability Statistics

Cronbach's Alpha	N of Items
.955	10

Table 4.2

Result of reability testing

Based on the above table, the score of reability testing was 0.955 and compared with the alpha level ($\alpha=0.05$), the reability score was $0.955 \geq 0.05$. The questions in the instrument were reliable.

Second, the students were examined in the pretest and posttest stage to know the influence of jigsaw technique on the students' reading comprehension. The pretest and posttest data were analyzed by using dependent paired t-test test with the level of significant 0.05%

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PRETEST	0.95	45	.759	.170
	POSTEST	3.95	45	.510	.114

Table 4.3

Mean score

The above table show the mean score of pretest was 0.95 compared with posttest was 3.95 with the number of students were 45; the difference score is 3 in pretest and posttest data.

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PRETEST - POSTEST	3.000	1.257	.281	2.412	3.588	10.677	19	.000

Table 4.4

Paired dependent t-test

Based on the above table, the value of paired dependent t-test was 0.000 (sig 2 tailed=0.000) compared with level of significant 0.05; the paired t-test score $p=0.000 \leq$

0.05 and therefore, there is an influence of jigsaw technique on the students' reading comprehension.

In conclusion, based on data analysis, the questions were valid and reliable after applying correlation product moment and alpha cronbach. Each score of the question was bigger (r_{hitung}) than 0.248; therefore, ten questions were valid. Next, the reliability score was 0.955, compared with $\alpha=0,05$, the reliability score was $0.955 \geq 0.05$, the questions were reliable.

The mean score of pretest was 0.95 compared with 3.95 as the mean score of posttest and thus, the difference score was 3 that showed significant score. Next, the sig 2 tailed score was 0.000 compared with level of significant 0.05, the sig 2 tailed score = $0.000 \leq 0.05$. Therefore, there is the influence of jigsaw technique on the students' reading comprehension.

Z. Conclusions

Based on the data analysis, there is the influence of jigsaw technique on the students' reading comprehension, particularly students in the non-English department. This statement is shown by comparing the sig 2 tailed score is $0.000 \leq 0,05$ (level of significance).

Based on research outcome, the author suggests that English teachers and lecturers use jigsaw technique to improve students' non-english department. The jigsaw can be applied either at the school level or higher education. The aim is to support students more actively and together with classmates find the theme and main topic in the reading text. Furthermore, this research can be used as reference for another researcher who wants to conduct research about jigsaw technique or reading comprehension.

In conclusion, the author hopes this research will contribute to the English Language Teaching , particularly teaching English as a second language.

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