The Effect of Jigsaw Method on Students' Reading Comprehension at Junior High School Students

Karel Samangun[1], Vivit Rosmayanti[2], Sujarwo[3]
[1]Pendidikan Bahasa Inggris, FKIP, Universitas Megarezky, Makassar, Indonesia
Email : karelsamangun4@gmail.com
[2]Pendidikan Bahasa Inggris, FKIP, Universitas Megarezky, Makassar, Indonesia
Email : vivitoellah@gmal.com
[3]Pendidikan Bahasa Inggris, FKIP, Universitas Megarezky, Makassar, Indonesia
Email : jarwo.ibrahim@unimerz.ac.id

Abstract

This study aims to determine the effectiveness of role-playing in teaching speaking skills to students of class XI 19 Senior High School Makassar, and whether there is a significant difference between students who are trained in speaking skills using conventional methods and students who use role-playing techniques. This study uses a quantitative approach, namely experimental research with a pre-test and post-test research design and the sample of this study is 60 students. Researchers used two clasess and experimental class using role-playing techiquess and a control class using concetional methods. Meanwhile, in the last stage, the researcher gave a post-test in the same class to find out whether the role-playing techiquess was effective in teaching students speaking skills in the experimental class. The results of this study show the average pre-test in the experimental class (59.87%) and the control class (60.93%). The post-test average of the experimental class (84.40%) was higher than that of the control class (64.53%). This means that there is a difference between students who use role-playing techniquess abd students who uses conventional techniquess. Thus, teaching speaking using role-playing techniquess has a significant effect on improving students speaking skills. Therefore, it is suggested that the role-playing techniquess can be applied as an affective learning method for teachers to teach speaking skills anf for future researchers to use the same type of research under different conditions.

Keywords: Effectiveness, Role Play Techniques, Speaking Skill

INTRODUCTION

The significance of English as both a global language and a second language cannot be overstated in the 21st century, particularly in the context of international communication (Febriati et al., 2022). Due to the importance of English proficiency, institutions have allocated sufficient resources for the instruction and acquisition of the English language (Ibrahim et al., 2023).

Reading is one of the important skills for English language learners, especially for students who learn English as a foreign language. Reading comprehension depends on vocabulary. Without understanding the meaning of the majority of the words, readers cannot comprehend what they are reading (Achamd et al., 2022). Reading is the interaction between the reader and the text. When readers have sufficient knowledge of a given text and language, they may discover strategies to understand the meaning of the text (Peter et al., 2023). Reading for understanding is the main goal of reading. Therefore, students are always asked to understand the text reading by the teacher. To do that, students are expected to be good readers who are able to understand the text effectively and efficiently (Nurwanti, 2022).

Reading comprehension is still a problem for most students, moreover for students who study English as a foreign language (Sasabone et al., 2023). Students must think not only in translating words, phrases, sentences, or even paragraphs, but also must understand meanings, tenses, etc. Vocabulary is an element of language that supports language activities; Poor vocabulary mastery can affect a person's reading ability. Vocabulary as a factor that can affect reading comprehension has a very important position (Achamd & Sujarwo, 2022).

This is because English and Indonesian have differences in terms of vocabulary, voice or pronunciation, spelling, tenses, and grammar. This problem usually makes the students lose their interest in English teaching and learning reading process. Reading is an interactive process that takes place between the reader and the text, resulting in understanding. The purpose of reading also determines the right approach to reading comprehension. This means that reading is an activity to understand the text, and by understanding the text, we can obtain information or messages from the author.

Based on the observations made at SMP Yapend Bungaya, the researcher found that most students at SMP Yapend Bungaya had difficulty understanding the reading texts. Most of them only try to translate the text given to them. They only focus on the meaning of each word without trying to understand the whole text. It is not realized that the word may have different meanings in different contexts. Usually when they read some texts, they spend time translating words (Nurwanti, 2022). When they find text that has long paragraphs or lots of text in one task, they usually lose motivation because they think that it was take a long time to translate the text. They lose interest in reading, even in learning English. However, in translating properly and correctly is not an easy thing to do. because in translating, sometimes the results of the translation do not match the grammatical structure, making it difficult for students to translate English in to Indonesia, (Sarmila *et al.,* 2023).

The problems above make students at SMP Yapend Bungaya unable to understand reading texts to the fullest, so the process of learning to read and learn English cannot be optimal.

Various reading materials can make teaching and learning to read English more creative, interesting, challenging and useful. In exploring students' prior knowledge, of course, we need a method. One method that can evoke students' initial knowledge is the Jigsaw method that was be studied in this study. Jigsaw method as an alternative way to create an active teaching and learning process.

The method that the researcher chose is jigsaw method to help students understand reading materials and to promote students' social skill. Theoretically, the Jigsaw method has the potential as a strong teaching strategy in an inclusive class that combines academic and social skills. As one of the cooperative learning techniques is a technique through grouping students in learning material. This was evident in Jing Meng's research (2010), students learn to do teamwork in learning materials that have been divided into sections and members from each group was meet with other groups discussing their topics and return to their groups. In addition, students can also promote positive interdependence and individual abilities. students by contributing effectively because each student has their own important role in the group.

METHOD

This research was conducted by using a quantitative approach. Quantitative research methods can be interpreted as a research method that based on the philosophy of positivism, used to study populations or a particular sample, collection technique sampling is generally carried out random, data collection using research instruments, data analysis is quantitative/statistical with the aim of testing the hypothesis that has been set. In more detailed in this study, researchers using pre-experimental design in the form of one group pretest-posttest design. Research used pre-experimental design models with one group pretest-posttest form design contains that paradigm there is a given group treatment / treatment and so on observed results, however before being given any treatment pretest to determine the initial conditions. Thus, the results of the treatment can be more accurate as it can be compare with circumstances before being given treatment. Experiment design was used to determine possible causes and effects according to research title. Based on the title of this study, the researcher used experimental research to obtain data. Experimental design was a traditional approach to conducting quantitative research, as previously explained that this research uses a quantitative approach and the technique is experimental research (Creswell, 2021). This experiment involves two variables, one being an independent variable and the other being a dependent variable (Creswell, J. W., & Creswell, 2017). The independent variable is the method, namely X. The dependent variable is the students' reading comprehension, namely Y. The independent variable is controlled by the researcher while the dependent variable by the researcher. The independent variable is the cause and the dependent variable is the effect. The independent variable of the research was the treatments (jigsaw method) whereas the dependent variable of the research was the students' reading comprehension ability.

Population was a generalization consisting of objects that have certain quantities and characteristics determined by researchers to be studied and then drawn conclusion (Leavy, 2017). The population of this research at SMP Yapend Bungaya in academic year 2022/2023 consist of 76 students.

In experimental research, the sample was used part of the number and characteristics of the population. If the population was large, it was be impossible for the researcher to study everything there were because of considerations of

technique, time, and cost, then sample. The sample must represent all the facts so that a conclusion with a certain level of confidence can be obtained that can represent the object of the population as a whole (Puspitorini, 2018).

The sample by using sample Random Sampling (Arieska &Herdiani, 2018). Random sampling is a method in which each population members was given equal opportunity to be selected as a sample. Random sampling is a basic type that was often used to develop more complex sampling methods in this study, the research took A class for experimental classs and control class.

Sugiyono (2017) said that sample is partially taken from the entire object that is examined and considered to represent the entire population. In taking sample, the researcher used simple random sampling. Random sampling is the process of selecting a sample in such a way that all individuals in define population have an equal and independent chance of selection for the sample (Mills, G. E., & Gay, 2016).

Research instruments are tools or facilities used by researcher in collecting data, therefore the work is easier and the results are great, in the sense of being more accurate, complete, and systematic therefore it is easier to process (Cohen, L., Manion, L., & Morrison, 2017). The instruments of this research were reading test and documentation.

RESULT AND DISCUSSION

The results of research on the effect of jigsaw method on students' reading comprehension at SMP Yapend Bungaya this research was conducted on Thusday April 27-May 27 2022. The researcher gave a pretest, treatment, and then a post-test to the class. Furthermore, the researcher collected data through the use of reading comprehension tests.

Descriptive Analysis

Table 4.1 Students' score pre-test

No	Value interval	Categories	Frequency (F)	Percentages (%)	Minimum Completeness criteria score: 70
1	86 – 100	Excellent	-	-	-
2	71 – 85	Good	-	-	-
3	56 – 70	Fair	2	9%	Fair
4	41 – 55	Poor	10	45%	Failed
5	<40	Very poor	10	45%	Failed
	Total		**22**	**100%**	**0 (pass the score of 70)**

Based on table 4.1 above, it can be seen that in the pre-test, there were 10 (45%) students that reading comprehension in poor classification. There were still 10 (45%) students whose reading comprehension was very poor. Then, were still 2 (9%) who reading in fair classification. Based on the student's score results, none of them got the minimum completeness score or 70 scores. So the student's ability on pre- test is still very lacking.

Table 4.2 Students' score post-test

No	Value interval	Categories	Frequency (F)	Percentages (%)	Minimum Completeness criteria score: 70
1	86 – 100	Excellent	-	-	-
2	71 – 85	Good	4	18%	Success
3	56 – 70	Fair	11	50%	Fair
4	41 – 55	Poor	7	31%	Failed
5	<40	Very poor	-	-	-
	Total		22	100%	4 (pass the score of 70)

Table 4.2 showed 4 students (18%) had good category in interval score post test, were 11 students (50%) who got fair category in post-test and were 7 students (31%) who got poor category in pre-test. It means that there was an improvement in students on valid minimum completeness criteria.

Table 4.3 Descriptive Data Analysis

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Pretest	22	20	65	45.32	12.415
Posttest	22	45	80	62.95	9.717
Valid N (listwise)	22				

Source: IBM SPSS Statistics Version 22

Based on Table 4.3 above, it can be seen that N = Valid 22 and 0 students are missing from the class. The mean of the pre-test was 45.32 and the post-test was 62.95. The minimum pre-test was 20 and the post- test was 45. The maximum of the pretest was 65 and the post-test was 80. Based on the data we can know that there was an improvement between Students pre-test and post-test.

Table 4.4 Students classification assessing

Indicator	Mean score		Improvement
	Pre-test	Post-test	
Main idea	2.81	3.27	16%
Orientation and complication	2.40	3.18	32%
Resolution	2.13	3.5	64%
Re-orientation	1.72	2.81	63%

Based on Table 4.4 above, we can see students' reading comprehension criteria. The table showed the mean score of the main idea on the pre-test was

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2.81, and post-test 3.27, the improvement was 16%. For orientation and complication, the mean score in the pre-test was 2.40 and the post-test was 3.18, the improvement is 32%. Resolution, the mean score of the pre-test was 2.13 and the post-test was 3.5, the improvement was 64%. Then, re-orientation, the mean score of the pre-test was 1.72 and the post-test was 2.81 the improvement was 70%.

Table 4.5 Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Pre-test reading comprehension	. 191	22	.035	.939	22	.188
Post-test reading comprehension	. 129	22	. 200*	.958	22	.456

Source: IBM SPSS Statistics Version 22

Based on Table 4.4, it can be seen that the result of the data is t value (Sig.) > 0.05. It means that the variables are normally distributed. So, because all the data is normally distributed then the analysis can be continued.

Table 4.6 Test of Homogeneity of Variances

Reading Comprehension

Levene Statistic	df1	df2	Sig.
2.937	5	14	.051

Source: IBM SPSS Statistics Version 22

Based on Table 4.5, it can be seen that the sig P value is 0,051. It means that the sig t value > 0.05 so the data is homogeneity and the data analysis can be continued with parametric statistics.

Table 4.7 Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	
Pair 1	Reading Comprehension (Pre-test) - Reading Comprehension (Post-test)	-17.636	11.935	2.544	-22.928	-12.345	-6.931	21	.000

Source: IBM SPSS Statistic variation 22

Based on Table 4.6 above, it can be seen that the t value was -6.931 and the df value is 21 with a significance value of t (sig) 0,000 < 0.05 then, this shows that there is a significant difference. In other words, accept the alternative hypothesis (H_a) and reject the null hypothesis(H_0) to test.

From the results of hypothesis testing, it is proven that "the effect of jigsaw method on students' reading comprehension for the eigth-grade students of SMP Yapend Bungaya."

This study aims to determine whether the use of the jigsaw method can have an impact on the reading comprehension of eighth grade students at SMP Yapend Bungaya. Researcher used narrative texts in improving students' reading comprehension to make students interested and easy to understand the lessons or readings given.

In this study the researcher used a pre-experimental design using the One Group Pretest-Posttest Design. The purpose of this study was to prove the increase in the use of the jigsaw method for students' reading comprehension at SMP Yapend Bungaya. The population in this study were all students of class VIII. The sample of this research is 22 students of class VIII. In the process of this research, the researcher was given an initial or pre-test to students before being given treatment by providing english narrative text to find out the extent of students' reading comprehension. Then, the researcher gave a final test or Post-test after being given treatment using the jigsaw method. To find out whether the use of the jigsaw method has an increase in reading comprehension.

In this study, four meetings were held in conducting treatment using the jigsaw method. The students were given a narrative text entitled Pinocchio, Rapunzel, The rats and elephant and red riding hood. Researchers are given narrative texts to make students enjoy learning. This narrative text includes several examples of everyday stories to make it easier to understand the lesson.

In narrative text, there are four reading assessment criteria that the researcher uses, main idea, orientation, complication, resolution, and re-orientation. The purpose of applying the reading comprehension assessment is to find out the types of ability criteria that students have.

The main idea criterio is the students' ability to understand the meaning and reading structure of the given narrative text material. In the pre-test and post-test, the researcher classified the main idea on 5 test numbers. Orientation and complication is focused on the narrative text content. There are 10 number for orientation and complication in the pre-test and post-test. Resolution, this criterion focuses on the level of students' understanding and also some errors in a narrative text reading. There are 5 numbers for resolution in the pre-test and post-test. Re-orientation is the student's ability to answer the question with the correct answer. There are 10 test questions in the pre-test and post-test.

From the classification of the data, the researcher found the average value for the criteria for assessing student scores. The average score of the assessment criteria shows that the main idea, Orientation and complication are the most criterion which are still lacking in students' reading comprehension skills. Resolution, re-orientation is the most criteria that students have in reading comprehension skills. Table 4.4 shows that the average score on the pre-test increased by 63% on the post-test. Then the average score of resolution in the pre-test increased by 64% in the post-test.

Based on the results of the study, namely regarding the comparison of statistical values, pretest scores were carried out by 22 students where 10 (45%) students were

in the very poor category and 10 (45%) students were in the less category. This shows that not a single student reached the KKM. In the pretest score, the lowest score is 20 scores and the highest score is 65 scores with an average of 45.32. This means that the ability of students before being given treatment is still very lacking. Based on previous observations, this happened because most of the students did not understand and only carelessly answered the questions given.

Then there was an increase in students' post test results, namely 4 (18%) students were in the good category, 11 (50%) students were in the sufficient category, 7 (31%) students were in the less category, and what was interesting about the post this test is where there are no students who score in the very poor category, and in this Post-test there are 4 (18%) students who meet the KKM. Then the highest score on the post-test was a score of 80 and the lowest score was a score of 47 Then the average was 62.95 thus meaning there was an increase, so that it can be said that the use of the jigsaw method by using narrative text reading can make it easier for students to learn English, especially reading comprehension.

As for the increase in the use of the jigsaw method in learning to read narrative texts, it can be seen through hypothesis testing, namely by statistical analysis which states that the value of Sig is 0.000 < 0.05 and t $count$ of Sig < is 0.000 < 0.05 So, Ha is accepted and $H0$ is rejected.

The result of the analysis data of this study is in line with researchers, Adams (2013) conducted the research under the title of "Using Jigsaw method as an Effective Way of Promoting Co-Operative Learning among Primary Six Pupils in Fijian". It can be concluded that the jigsaw method can improve students reading comprehension.

Base on the results of data analysis, it can be concluded that there is an increase in students' reading comprehension after being taught using the jigsaw method. This is in line with what was conveyed by Suherdi (2017) conducted a research under the title "The effectiveness of jigsaw in improving students' reading comprehension". The objective of this study was to investigate the effectiveness of jigsaw in teaching reading comprehension for seventh grade students at Public Junior High School in Bandung. So that the use of the jigsaw method is effective in students' reading comprehension, especially the eigth grade students class at SMP Yapend Bungaya.

The above idea is also in line with the statement of Duke & Pearson (2007) stated that reading comprehension is the process by which the reader constructs meaning as building material for information about knowledge stored in the reader's head.

The jigsaw method using narrative text is a very interesting method it applied in schools during process of learning to read, so that students can easily understand the information conveyed through the narrative text conveyed. As stated by Mark and Kathy (2003). Narrative text is considered as the most interesting text. Likewise, in line with what Anderson (2013) said, a narrative text is a text that has a purpose to entertain the reader or listener. Moreover, narrative can also be written to teach or inform, to change attitudes or social opinions and to show the moral of a story.

The researcher discussed the effect of the jigsaw method and found that this method was effective for improving students' reading comprehension, especially for class eight grade students of SMP Yapend Bungaya.

CONCLUSION AND RECOMMENDATION

The use of the jigsaw method in reading learning media for the students' at SMP Yapend Bungaya. Based on the results of this study it was concluded that the jigsaw method was effective in improving reading skills. It was found that the results of process calculations, the researchers found that the pretest class had an average value of forty five point thirty two and the posttest had an average value of sixty two point ninety five. This means that there is an influence on the ability to read using the jigsaw method. After the students get treatment in the treatment class it is easier to understand, explain the material and are motivated because they improve their reading skills more easily after applying the jigsaw method. The jigsaw method is not only a method that can improve student cohesiveness but also improve English learning skills, especially in understanding a text.

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