Enhancing Reading Proficiency: An Investigation into the Effectiveness of Think Pair Share and Jigsaw

Laily Anzalina[1], Ary Setya Budhi Ningrum[2]
[1,2] Institut Agama Islam Negeri Kediri, Indonesia
ary_oyesip@iainkediri.ac.id

Abstract

The aim of this study is to find out whether the Think Pair Share (TPS) method and Jigsaw method are effective for teaching reading comprehension skills to the tenth grade students of SMAN 1 Prambon, East Java. The quasi-experimental design was applied in this study. There were 33 students of X2 as the experimental class which is using Think Pair Share Method and 31 students of X1 as the control class which is using Jigsaw Method. The instruments used are pre-test and post-test. The result of this study proved that the Think Pair Share method and Jigsaw are effective to teach reading comprehension. On the other hand, when comparing which method is more effective between the Think Pair Share Method and the Jigsaw Method for teaching reading, it can be seen from the result that Think Pair Share Method is more effective than the Jigsaw Method in teaching reading comprehension.

Keywords: Jigsaw, reading, Think Pair Share

Introduction

Reading is considered to be one of the fundamental skills in the English language. According to Durkin (2020), the act of reading entails the understanding of written symbols and requires the reader to derive meaning from the text. Reading can be conceptualized as a mode of communication wherein the author conveys a message by encoding it within a written text.

An alternative definition put out by Sudirman and Said (2021) is as follows; the act of reading entails a reciprocal exchange of information between the reader and the writer, with the purpose of effectively transmitting the author's intended message. In order to properly comprehend the relevance of the book, the reader must possess a comprehensive understanding of its content. Reading plays a crucial role in aiding pupils or readers in understanding the viewpoint of the author. By engaging in the activity of reading, individuals have the opportunity to improve their understanding and expand their knowledge. Reading offers numerous advantages, including the acquisition of knowledge and access to information, enabling individuals to expand their understanding.

Reading serves a variety of functions if readers interpret understanding from what they've read. The reader can get a sense of understanding the text, and reading also makes the reader fun. Reading comprehension senses students to grasp the text by responding to some questions related to the text. In other words, a person's ability to understand a text is influenced by their

traits and skills. One of them is the ability to draw conclusions.

Reading comprehension requires students to grasp the text by responding to some questions related to the text. Reading comprehension cannot be separated from comprehension. In other words, to understand what you are reading, you have to inherently understand or grasp the meaning of the information (comprehension) (Oakhill, et al., 2015). According to Suparman (2012), students need to grasp four key components of reading English texts in order to comprehend the meaning and written material. These aspects include the identification of main ideas, the retrieval of references, information, and vocabulary within the reading texts.

The 2021 English Proficiency Index (EPI) report has been launched by EF Education First, a prominent global provider of language education services. This paper provides an overview of the global trends in English language competency. Indonesia's current ranking of 80th out of 112 countries represents a decline of six points from the previous year, perhaps posing challenges to the efficacy of educational practices and knowledge acquisition. English is considered a non-native language in Indonesia, hence leading to potential challenges for students in terms of reading comprehension. These difficulties may arise due to factors such as a restricted vocabulary, erroneous grammar usage, or misinterpretation of the text.

The weak understanding of students in reading English texts could be also caused by the ineffective way of teaching. Therefore, teachers are advised to teach with reading strategies that suit the needs of students and their level of reading comprehension as well as according to the type of text, especially if students experience difficulties in understanding the text if they do not use inappropriate strategies (Ali & Razali, 2019). Therefore, there are several learning methods that can be used by teachers to build reading comprehension of English texts. Cooperative learning is one of the learning methods to overcome difficulties in reading English texts for students.

Cooperative learning is considered one of the best and most successful methods in the history of educational research. Cooperative learning is known as a teaching strategy used to motivate students in academics (Namaziandost, et al., 2019). It can also refer to a teaching method in which students work on activity in groups.

The Think Pair Share method is a teaching strategy developed by Lyman. Think Pair Share is one of the Cooperative Learning methods. TPS is broken down into three steps, namely, Thinking, Pairing, and Sharing. According to Hamdan (2017), Think Pair Share is a teaching method that can be utilized before, during, and after reading. According to Lie (2002, p.57), Think-Pair-Share (TPS) is a method that allows learners to work independently or collaboratively,

giving them ample time to reflect, react, and support each other.

Another learning method belonging to cooperative learning is Jigsaw. Jigsaw is a collaborative learning method that involves a group of students. One member is responsible for a particular topic and teaches it to the other members. Through various activities, such as reading texts, listening to the teacher, and learning new vocabulary, the students can actively participate in class discussions. According to Hyland (2008), this method is effective in improving students' metacognitive awareness and enhancing their comprehension of the content. Additionally, Meng (2010, pp.501-504) suggests that the Jigsaw method is useful for achieving two important teaching objectives: teaching content while simultaneously allowing students to learn from one another in small groups.

The effectiveness of the Jigsaw method in teaching reading comprehension has been demonstrated in prior research undertaken by Facharyani et al. (2018) and Nurbianta & Dahlia (2018). Furthermore, a research investigation conducted by Herman et al. (2020) at SMA 4 Pematangsiantar revealed that the implementation of Jigsaw teaching strategies had a substantial impact on the reading comprehension skills of tenth-grade students, specifically in the context of recount texts. Furthermore, a study conducted by Ahmada (2019) found that the Jigsaw technique has proven to be efficacious

in facilitating the acquisition of reading comprehension skills specifically in the context of narrative texts.

The effectiveness of the Think Pair Share approach was examined in a study conducted by Damayanti (2022) with tenth-grade students from Sriwijaya State Sports High School. A study conducted by Ageasta and Oktavia (2018) also investigated the effectiveness of utilizing the Think Pair Share technique in teaching narrative texts to junior high school students. The findings of the study revealed that the implementation of think-pair-share strategies in reading narrative texts resulted in enhanced comprehension among students. Harvianda and Komariah (2019) conducted a study which found that students who were taught utilizing the Think Pair Share method shown greater academic improvement compared to their previous performance.

Based on the background of the study, the statements of research problems are posted: (1) Is the Think Pair Share method effective for teaching reading? (2) Is the Jigsaw method effective for teaching reading? (3) Is there any significant difference in students' reading comprehension between students who are taught by using TPS and students who aretaught by using jigsaw Method?

Theoretical Review

William and Fredrika (2002) list seven purposes for reading, including searching for

basic information, skimming, learning from books, integrating knowledge, and more. Reading for writing (or to find information for writing), reading to analyze texts, and reading for general comprehension.

Another purpose reading expert Wallace (1992, pp.6-7) explained the three categories of reading purposes. These are: reading for survival, reading for learning, reading for pleasure.

Think Pair Share (Slavin, 1995, p.132) is described as follows; students sit in pairs with their groups as the teachers offer a lesson to the class. The kids are told to come up with an answer before responding to the teacher's questions. When everyone in the class has reached an agreement, the teacher asks pupils to share their answers. More than that, each student becomes an active participant. The think-pair-share technique allows students to process new information independently before they are influenced by other students' responses, as may be seen from the previous explanation. By this process, students gain the ability to communicate their ideas to a peer and subsequently to a bigger audience (the entire class).

Barkley et al. (2005) determined the steps of Think Pair Share to teaching reading as follows.

Step 1: Think

Teachers give students questions and give them the chance to think about the questions for a few minutes.

Step 2: Pair

The teacher asks students to make pairs with other students or their chair mate.

Step 3: Share

Where learners can work independently or together, allowing them sufficient time to contemplate, respond, and assist one another.

This technique encourages students to reflect on their own thoughts and ideas, as well as engage in collaborative discussions with their peers. The advantages of using think pair share to teach reading can improve attendance, TPS requires students to use the time to do tasks or problems given by the teacher, giving students opportunities to be more active in class.

Moreover, The Jigsaw technique, according to Gladstone (2013), is a collaborative learning approach in which student groups become specialists in 23 different disciplines before imparting their knowledge to other students. The approach improves retention, engagement, and learning. According to Haryanto (2012), with the Jigsaw technique, students undertake learning activities by partnering with other students to achieve their aim.

Aronson (1975) in Huda (2011), there are several steps in jigsaw learning as follows. Students are separated into groups of five students each; each group is given the same main material, then separated into five sections; they regrouped with members from other groups who received the same part of the materials after reading and memorizing

their own part in their own group; students in the expert group discuss and collaborate to determine the best approach to learn the content and how to express it to other members of their own group; students are encouraged to return with their original group; and they must explain their material to the expert group and other members of the group.

According to Anderson (2003) procedure text is a text that gives directions for conducting a certain action. An explanation of how to do something is the goal of a procedure text. A method is a set of actions that demonstrates how to accomplish a particular goal. The aims of procedure text are (1) to express a process of how to create or manage something, and (2) to depict how something is done through a series of steps that are usually written in the present tense (Jaya & Marleni, 2018). Therefore, it can be concluded that procedure text is a text that explains how to do something to make a goal.

There are three generic structures of procedure text:

Goal/purpose: to give information or the important things that we need.

Material: the things that you need to make something.

Steps: the details on creating something after the materials are known.

The language features of procedure text according to Knapp and Watkins (2005). These sentences use the present simple tense,

action verbs, connectives, adverbs, and imperative constructions.

Method

This study employs a quantitative research approach and utilizes a quasi-experimental design. The researcher selects two classes, one as the experimental group and the other as the control group. The experimental group received instruction using the Think Pair Share (TPS) method, while the control group was taught using the Jigsaw method. The study includes a pre-test, treatment phase, and post-test. The research design for the pre-test, post-test, control group, and treatment use were outlined as follows.

Table 1. Research Design

Group	Pre-test	Treatment	Post-test
Experimental	X1	TPS	X2
Control	Y1	Jigsaw	Y2

This study took two classes as samples, namely class X-1 and X-2 for the academic year 2022/2023. There were 64 students, 33 students in the experimental group, and 31 students in the control group.

This study uses a reading test as an instrument. The test is used to find out data about a student's comprehension in reading. Initially, a pilot study was conducted to assess the validity of the reading test. The reading test was administered to classes other than the experimental and control groups for

the purpose of evaluation. The set of try-out reading test comprises a total of 40 multiple-choice items. The utilization of item validity was employed in the present study to ascertain the index validity of the test.

Table 2. Validity of the Test

Criteria	r-table	Number of questions	total
Valid	0.374	1,2,3,4,5,6,7,8,9,10,12,13,14,15,16,17,18,19,20,25,26,29,30,21,32,33,37,38,39	28
Invalid		11,14,21,22,23,24,27,28,34,36,40	12

The validity was determined using 40 test items, 28 of which were valid and 12 of which were invalid.

The result of the reliability of the test can be seen on Table 3.

Table 3. Reliability of the Test

Cronbach's Alpha	N of Items
.867	40

The Cronbach's alpha shows the value .867. It can be concluded that the reliability of the test is included in the very high criteria.

Prior to commencing the treatment, a pre-test was conducted to assess student proficiency in reading comprehension. After the treatment was completed, both the control and experimental groups underwent evaluation using a post-test. Both the control and experimental classes were administered pre-tests and post-tests. The pre-test and post-test encompassed a set of 20 multiple-choice questions pertaining to the topic of procedural text. Each student was allocated 40 minutes to complete the assessment.

After taking data through pre-test, and post-test in both experimental and control classes, the researchers conducted a statistical analysis to compare the scores received from the experimental and control classes, with the aim of addressing the research question formulated in this study. The computation was conducted using the SPSS 25 software tool.

Result

The goal of this study is to find out the effectiveness of using the Think Pair Share method and Jigsaw method on students' reading comprehension. There are three questions that need to be addressed in this study.

Before we go on testing hypothesis for answering the research question, here are the descriptive statistics of pre-test and pos-test from both experimental group (Think Pair Share method) and control group (Jigsaw method), and the result of normality test.

Table 4. Statistic Descriptive of Pre-test and Post-test

	Experimental class (TPS)		Control Class (Jigsaw)	
	Pre-test	Post-Test	Pre-test	Post-test
Mean	54.09	73.64	60.16	68.71
Maximum	85	95	85	85
Minimum	10	35	15	25
Median	60	75	60	75
Std Deviation	22.377	13.879	15.247	13.113
N	33	33	31	31

Upon examination of Table 4, it is evident that the experimental group achieved a maximum score of 85 in the pre-test, which aligns with the score attained by the control group. However, it was observed that the experimental group achieved a much higher maximum score in the post-test compared to the control group, exhibiting a notable difference of 10 points. The experimental group achieved a mean score of 95, whereas the control group was 85.

Table 5. Normality Test

Group	Asymp. Sig. (2-tailed)	
	Pre-test	Post-test
Experiment	091	.000
Control	.200	.000

Based on the test of normality if the sig >0.05, then the distribution is normal. However, if the sig < 0.05, then the distribution is not normal. According to Table 5, the distribution of pre-test experimental and control classes was normally distributed. Nevertheless, for the normality test of the post-test, both the experiment and control class were not normally distributed. Therefore, since the data were not normally distributed, the non-parametric statistics are used to test the hypothesis.

RQ 1: *Is the Think Pair Share method effective for teaching reading?*
Testing hypothesis

Ho: *There is no significant difference in students' pre-test and post- test taught by the TPS method in reading comprehension.*
Ha: *there is a significant difference in students' pre-test and post-test taught by the TPS method in reading comprehension.*

The Wilcoxon test was used to evaluate whether there is a difference in the two paired samples. The Wilcoxon test requires research data that was not normally distributed. The Wilcoxon test is often known as the Wilcoxon signed rank. The data analysis was calculated using the SPSS 25. The tests are based on the following criteria:
If Asymp.sig (2-tailed) <0,05 means Ha is accepted or there is a significant difference.
If Asym.sig (2-tailed) >0,05 means Ha is rejected or there is no significant difference.

Table 6. The result of Wilcoxon Test in Experimental Group

Z	-4.352^b
Asymp. Sig. (2-tailed)	.000
a. Wilcoxon Signed Ranks Test	

Table 6 is the Wilcoxon results of students' pre-test and post-test in an experimental group. The experimental group was treated with the Think Pair share method. Based on Table 6, it is clear that asymp. Sig (2-tailed) is .000. The value .000 is below 0.05, which means that Ho is rejected, and Ha is accepted. As a result,

there is a significant difference between students' pre-test and post-test in the experimental group. Moreover, if we take a look at descriptive statistics of experimental group in which the mean score of post-test (73.64) is higher than mean score of score pre-test (54.09), then it can be inferred that Think Pair Share method is effective for teaching reading comprehension.

RQ 2: *Is the Jigsaw method effective for teaching reading?*

Testing hypothesis

Ho: *There is no significant difference in students' pre-test and post- test taught by the jigsaw method in reading comprehension.*

Ha: *there is a significant difference in students' pre-test and post-test taught by the Jigsaw method in reading comprehension.*

Table 7. The Result of Wilcoxon Test in Control Group

Z	-2.525[b]
Asymp. Sig. (2-tailed)	.012
a. Wilcoxon Signed Ranks Test	

Table 7 is the Wilcoxon results of students' pre-test and post-test in the control group. The control group was treated with the Jigsaw method. Based on Table 7, it is clear that asymp. Sig (2-tailed) is .012. The value .012 is below 0.05, which means that Ho is rejected, and Ha is accepted. As a result, there is a significant difference between students' pre-test and post-test in the

control class. Furthermore, while examining the descriptive statistics of the control group, it is evident that the mean score of the post-test (68.71) surpasses the mean score of the pre-test (60.16). This observation leads to the inference that the Jigsaw method proves to be efficient in enhancing reading comprehension instruction.

RQ 3: *Is there any significant difference in students' reading comprehension between students who are taught by using TPS and students who are taught by using jigsaw Method?*

Testing hypothesis

Ho: *there is no significant difference between students taught by using TPS and students taught by Jigsaw method in reading comprehension.*

Ha: *there is a significant difference between students taught by using TPS and students taught by Jigsaw method in reading comprehension.*

To test the hypothesis, Quade Rank Analysis is used to analyze both post-tests in experimental and control groups. The data analysis was calculated using SPSS 25. The tests are based on the following criteria:

If Asymp.sig (2-tailed) <0,05 means Ha is accepted or there is a significant difference between experimental and control group.

If Asymp.sig (2-tailed) > 0,05 means Ha is rejected or there is no significant difference between experimental and control group.

Table 8. Quade Rank Analysis

F	DFH	DFE	P.Value
13.153	1	62	.001

The result of between groups significance is .001. which is based on the test criteria the value .001 is below 0.05. it means Ho is rejected. In conclusion, there is a significant difference between students taught by using Think Pair Share method and students taught by using Jigsaw method in reading comprehension. In addition, if we take a look at descriptive statistics of the mean score of post-test in experimental group (73.64) is higher than mean score of post-test in control group (68.71), then it can be inferred that Think Pair Share method is more effective than Jigsaw method in teaching reading comprehension.

The results lead to the following discussion. The finding shows that the think pair share method affects students' reading comprehension. Think pair share can help students' self-esteem when they pay attention to other students and appreciate their ideas. Also, students can learn higher-level thinking abilities, and build self-confidence when presenting ideas to the entire class. In the use of the think pair share method especially in teaching reading comprehension, the teacher gives a problem or task and gives students time to think about the question (Agaesta & Oktavia, 2018). This is essential since it allows students to begin developing answer by recalling knowledge from long-term memory. This is accordance with a research conducted by Damayanti (2022) by using Think Pair share (TPS) method students' reading comprehension was improving.

Moreover, Think Pair Share can also improve students' social skills as they pair with their chair mates to discuss their ideas about the questions, compare their thoughts and come up with the best answer. As said by Richards and Rodgers (2001, p.196) that success in cooperative learning is how students can work together in their group. When students discuss with their group or partner, they can acknowledge differences and respect others' thoughts and opinions. Despite the students that used to be shy in expressing their opinions to the teacher, they are comfortable enough when sharing their ideas with friends. This indicates that this method not only improves students' academic performance but also provides a positive output on social relationships in the classroom.

In the same way, implementing the Jigsaw Method is effective to improve students' reading comprehension. As a result of the Wilcoxon test sig (0.012) <0.05. The use of this method can make students more active during group discussions. This is an accordance with the result of previous studies conducted by Silalahi (2019) and Facharyani et al. (2018) that Jigsaw significantly increased students' reading comprehension.

The utilization of the Jigsaw method enables students to enhance their ability to

work in groups by exchanging ideas with their jigsaw group. Additionally, this method allows students to develop their self-teaching skills, students learn to discern the most essential information from their reading segment to then teach to their peers. Also, since they must teach their knowledge to the Jigsaw group, students take their study of the subject material more seriously. But still, there are problems, such as those students who are not focused during class because they are playing with their smartphones or chatting with friends, and they don't want to discuss anything and give all the work to their peers.

However, comparing which one is more effective in enhancing pupils' reading comprehension. The TPS method is significantly more effective than the jigsaw method in improving students' reading comprehension. In SMA Negeri 1 Prambon, it makes a positive contribution to the teaching and learning of reading comprehension. There are various reasons why the Think Pair Share is more effective for teaching than the Jigsaw method.

First, students are considerably more engaged and excited when they do an assignment with their chair mates. Second, in the control class, not all students were willing to discuss during learning, it was relatively often solved by two or three of the members of the group while the others participated as observers. Whereas in the experiment class, because the group only consisted of 2 people,

the discussion went very well, giving more students the opportunity to speak about an Idea, share ideas and develop their Reading understanding. The result of this research is supported by (Donato, 1995; and Ohta, 2001). When two students share the same understanding and abilities when they collaborate, the group can perform at a level that is above the competency of each individual learner because each learner can bring their strengths to the group.

Conclusion

The findings revealed a significant favorable impact of this method on students' reading comprehension as follows. The Think pair share is effective to teach reading comprehension for the tenth-grade students of SMA Negeri 1 Prambon in the academic year of 2022/2023. The jigsaw method is effective to teach students reading comprehension for the tenth-grade students of SMA Negeri 1 Prambon in the academic year of 2022/2023. The last, Think Pair Share is more effective than jigsaw method in teaching reading comprehension to the X grade students of SMA Negeri 1 Prambon.

References

Ageasta, Y. M., & Oktavia, W. (2018). Using Think-Pair-Share strategy in teaching reading narrative text for junior high school students. *Journal of English Language Teaching*, *7*(3), 9.

Ahmada, A. (2019). The effectiveness of Jigsaw learning model in teaching reading comprehension on narrative text. *Jurnal Darussalam: Jurnal*

Pendidikan, Komunikasi Dan Pemikiran Hukum Islam, *10*(2), 258.

Ali, A. M., & Razali, A. B. (2019). A review of studies on cognitive and metacognitive reading strategies in teaching reading comprehension for ESL/EFL Learners. *English Language Teaching,* 12(6), 94.

Damayanti, M. (2022). Teaching narrative reading by applying Think-Pair-Share model. *Darussalam English Journal*, *2*(1), 19.

Durkin, D.B. (2020). *Writing strategies for the education dissertation* (1st ed.). London: Routledge.

Facharyani, N., Masrupi, M., & Rahmawati, E. (2018). The influence of using Jigsaw as a method on students' reading comprehension at the seventh grade of SMPN 7 Kota Serang. *Journal of English Language Studies*, *3*(1), 80.

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design and evaluate research in education* (8th ed). McGraw-Hill Humanities/Social Sciences/Languages.

Gay, L. R., Mills, G. E., & Airasian, P. W. (2012). *Educational research: Competencies for analysis and applications (*10th ed). London: Pearson.

Grabe, W., & Stoller, F. L. (2011). *Teaching and researching reading (2nd ed)*. Pearson.

Hamdan, R. K. A. (2017). The effect of (Think – Pair – Share) strategy on the achievement of third grade student in sciences in the educational district of Irbid. J*ournal of Education and Practice,* 8(9), 88–95.

Harvianda, M. aulia, & Komariah, E. (2019). Teaching reading skill by using Think Pair Share model. *Research in English and Education (READ)*, *4*(2), 89–94.

Herman, Sibarani, J. K., & Pardede, H. (2020). The effect of Jigsaw technique in reading comprehension on recount text. *Cetta: Jurnal Ilmu Pendidikan*, *3*(1).

Jaya, A., & Marleni. (2018). Teaching reading procedure text through concept-oriented reading instruction (CORI) to the tenth grade students of state senior high school 13 Palembang. *English Community Journal,* 2(1), 158-166.

Kaganang, G. *(2019).* The use of Problem-Based Learning to improve students' reading comprehension at the first grade students of senior high school 1 of Middle Halmahera. *Journal of Linguistics, 2(1),9.*

Namaziandost, E., Shatalebi, V., & Nasri, M. (2019). The impact of cooperative learning on developing speaking ability and motivation toward learning English. *Journal of Language and Education*, *5*(3), 83–101.

Nurbianta, N., & Dahlia, H. (2018). The effectiveness of Jigsaw method in improving students reading comprehension. *ETERNAL (English Teaching Journal)*, *9*(1).

Miftahul Huda. (2011). *Cooperative learning, metode, teknik, struktur dan model terapan / Miftahul Huda*. Yogyakarta: Pustaka Pelajar.

Oakhill, J., Cain, K., & Elbro, C. (2015). *Understanding and teaching reading comprehension: A handbook*. New York: Routledge.

Quade, D. (1967). Rank analysis of covariance. *Journal of the American Statistical Association*, *62*(320), 1187–1200.

Rashid, H., Hui, W., & Islam, J. *(2021).* Discuss the different types of reading techniques and develop its skill.

Journal of English Language and Literature, 8(3), 6.

Sudirman, R., & Said, M. M. (2021). Identifying students' difficulties in reading comprehension at SMA Muhammadiyah 1 Palu through narrative text. *English Language Teaching Society (ELTS)*, *9*, 16.

Suparman, U. (2012.). *Developing reading comprehension skills and strategies*. Bandung: Arfino Raya.

Watkins, M., & Knapp, P.J. (2005). *Genre, text, grammar: Technologies for teaching and assessing writing*. New South Wales: University of New South Wales Press.