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<https://doi.org/10.58421/gehu.v5i1.1020> ISSN 2963-7147 1 Journal homepage:
<https://journal-gehu.com/index.php/gehu> Effectiveness of the Jigsaw Technique in
Improving Students' Reading Comprehension Lilis Sumantri¹, Mukrim², Mashuri³,
Maf'ulah⁴ 1,2,3,4Universitas Tadulako, Palu, Indonesia Article Info ABSTRACT Article
history: Received 2026-01-02 Revised 2026-01-13 Accepted 2026-01-24 Reading
comprehension constitutes a fundamental component of English language learning, as it
enables students to construct meaning and understand written texts effectively.
Nevertheless, many junior high school students continue to have difficulty comprehending
English reading materials, especially when dealing with long descriptive texts and
interpreting words with multiple meanings in different contexts. These difficulties often
make students feel lazy and less motivated to read. Therefore, the Jigsaw technique was
applied to encourage active learning, collaboration, and communication among students by
dividing the learning materials into smaller sections, with each student responsible for
studying and explaining their section to their peers. This study aimed to investigate
whether the Jigsaw technique is effective in improving the reading comprehension of
seventh-grade students at SMP Negeri 15 Palu, particularly in learning descriptive texts.
This research employed a quasi-experimental design with two classes: VII A as the
experimental group and VII C as the control group, totaling 60 students. A reading
comprehension test consisting of 15 multiple-choice items and 5 essay questions was used
as the research instrument. The data were analyzed using statistical procedures to
determine whether the difference between the two groups was significant. The findings
revealed that students taught using the Jigsaw technique demonstrated superior reading
comprehension achievement compared to those taught through conventional methods.
The statistical analysis showed that the obtained t value exceeded the critical value at the
0.05 level of significance, indicating that the alternative hypothesis was accepted. These
results indicate that the Jigsaw technique, which promotes peer teaching, active
participation, and cooperative learning, is an effective instructional strategy for enhancing

students' reading comprehension and creating a more engaging learning environment.

Keywords: Descriptive Text Jigsaw Technique Reading Reading Comprehension This is an open-access article under the CC BY-SA license. Corresponding Author: Lilis Sumantri Faculty of Teacher Training and Education, Department of Language and Art Education, Tadulako University. Email: lilissumantri900@gmail.com

<https://doi.org/10.58421/gehu.v5i1.1020> 2 1. INTRODUCTION Reading comprehension is a fundamental component of English language learning because it enables learners to construct meaning, interpret information, and critically engage with written texts. It involves more than word recognition; it requires readers to understand ideas, infer meanings, and relate information to prior knowledge. Alderson [1] and Snow [2] state that reading comprehension is a complex cognitive process that integrates linguistic and background knowledge with reading strategies. Therefore, students' success in learning English depends greatly on their ability to comprehend written texts effectively. In junior high school, particularly in learning descriptive texts, reading comprehension remains a major challenge. Based on preliminary observations at SMP Negeri 15 Palu, many seventh-grade students experience difficulty understanding long reading texts. They tend to rely heavily on word-for-word translation, which often leads to confusion because words can have different meanings in different contexts. As Gillies [3] explains, differences in vocabulary, grammatical structures, and language patterns between English and Indonesian can interfere with students' comprehension. These problems hinder students' ability to identify detailed information, determine main ideas, and make inferences from descriptive texts, resulting in low motivation and limited engagement in reading activities. One instructional approach that can address these problems is cooperative learning. According to Gillies [3], cooperative learning promotes active participation, peer interaction, and shared responsibility in learning. One well-established cooperative learning technique is the Jigsaw technique. Aronson [4] and Blayne et al. [5] explain that the Jigsaw technique divides learning material into sections, with each student becoming responsible for one

part and then teaching it to group members. This process encourages deeper information processing and supports mutual learning among students. Previous studies have shown that the Jigsaw technique is effective in improving students' reading comprehension. Facharyani, Masurpi, and Rahmawati [6] reported that students taught using the Jigsaw method achieved better reading comprehension than those taught using conventional methods. Similarly, Wulandari and Dewi [7] found that cooperative learning enhances students' understanding of texts through discussion and peer explanation. Gillies [8] also emphasized that cooperative learning improves comprehension by promoting interaction and cognitive engagement. However, most previous studies focused on general reading comprehension, and limited research has examined the use of the Jigsaw technique in developing students' comprehension of descriptive texts, particularly in terms of identifying details, main ideas, and inferences among seventh-grade students. Therefore, this study aims to investigate whether the Jigsaw technique can improve seventh-grade students' reading comprehension in learning descriptive texts at SMP Negeri 15 Palu. It is expected that this technique will not only enhance students' understanding of descriptive texts but also increase their motivation and active participation in reading activities. **1 The findings of this study are** expected to provide valuable insights for English

<https://doi.org/10.58421/gehu.v5i1.1020> 3 teachers in selecting effective instructional strategies to improve students' reading comprehension. 2. METHOD This study employed a quasi-experimental design involving two groups: an experimental group and a control group. Both groups were administered a pre-test and a post-test. However, only the experimental group received the jigsaw treatment, while the control class was taught using the teacher's traditional approach. Following the treatment, both groups completed a post-test to measure any improvement in reading comprehension. Table 1. The Experimental Design

Groups	Pre-test	Independent Variable	Posttest
Experimental Group	O1	X	O2
Control Group	O3	O4	

Where : O1 and O3 : Pre-test X : Treatment O2 and O4 : Post-test The population in this research included all seventh-grade students at SMP Negeri 15

Palu, totaling 87 students across three parallel classes: VII A, VII B, and VII C. Classes A and C each had 30 students, but class B had only 27. A cluster-randomized sampling technique was used to select participants. Cluster random sampling is a method in which groups are randomly selected, and all elements within them are included. In this study, two classes with comparable reading comprehension levels and similar academic schedules were studied. Class VII A was designated as the experimental group, while Class VII C served as the control group. This selection ensured a fair and balanced comparison between the two groups. The main instrument in this research was a reading test consisting of two parts: multiple-choice items and an essay. Pre- and post-tests were administered to assess students' reading comprehension before and after the treatment, which consisted of six meetings, each lasting 80 minutes. During the treatment phase, the experimental group received instruction through the jigsaw technique, which integrated reading learning through interactive and communicative tasks. Meanwhile, the control group proceeded with the teacher's conventional method, using the whiteboard and textbook-based exercises. Some procedures were as follows: □ Before implementing the Jigsaw technique, the teacher explained the learning objectives, the characteristics of descriptive text, and the Jigsaw procedure. A brief example was provided to ensure that the students understood how the activity was conducted. □ After the explanation, the teacher divided the students into home groups of four and distributed different parts of a descriptive text to each group.

<https://doi.org/10.58421/gehu.v5i1.1020> 4 □ Each student was asked to read and understand their assigned part of the text individually. □ Students who studied the same part of the text then gathered in expert groups to discuss the content, clarify difficulties, and deepen their understanding. □ After the discussion, the expert group members returned to their home groups and took turns explaining the material they had learned to their group members. □ 2 At the end of the activity, the teacher posed comprehension questions to assess students' understanding, then provided feedback and

reviewed the correct answers with the class. Table 2. Scoring System

No	Kinds of test	Number of items	Score of each item	Total score
1	Multiple Choice	15	1	15
2	Essay	5	3	15
Total				30

The reading comprehension test and instructional activities using the Jigsaw technique targeted three dimensions of reading comprehension: □ Literal comprehension: the ability to recognize explicit information stated in the text, such as main ideas, specific details, and factual information. Multiple-choice items mainly assessed whether students could identify information directly presented in the descriptive text. □ Inferential comprehension: the ability to interpret implicit meanings, conclude, and understand relationships between ideas in the text. This dimension was measured using multiple-choice and essay questions to assess students' ability to infer meanings beyond explicitly stated information. □ Interpretative comprehension: the ability to explain, interpret, and respond to the text using students' own words in a meaningful and grammatically appropriate way. Essay questions primarily assessed this dimension, as they required students to construct answers based on their overall understanding of the text. Descriptive and inferential analyses were conducted to determine the mean scores, standard deviations, and the significance of the differences between the two groups. The analysis sought to determine whether the jigsaw technique produced a significant improvement in students' reading comprehension compared to conventional instruction.

3. RESULTS AND DISCUSSION

After collecting, calculating, and analyzing the data, the results are presented as follows:

3.1. Results

The descriptive statistics table shows the pre-test and post-test results for both the experimental and control groups.

<https://doi.org/10.58421/gehu.v5i1.1020> 5 Table 3. Pre-test Results of Experimental Group

Group	No	Initials	Multiple choice	Essay	Obtained score	Max score	Standard score
1	4	30	13,3	2	AZ	3	4
2	15	30	50,0	3	DAZ	5	2
3	11	30	36,7	4	IFS	2	3
4	11	30	36,7	5	MFK	8	5
5	23	30	76,7	6	MI	4	1
6	7	30	23,3	7	BP	7	3
7	16	30	53,3	8	FAA	1	4
8	13	30	43,3	9	MVL	6	2
9	12	30	40,0	10	MA	3	5
10	18	30	60,0	11	SYS	5	1
11	8	30	26,7	12	BH	8	5
12	23	30	76,7	13	ZF	2	4
13	14	30					

46,7 14 RA 7 3 16 30 53,3 15 NFH 6 2 12 30 40,0 16 DF 4 1 7 30 23,3 17 SS 1 5 16 30
 53,3 18 IFL 3 3 12 30 40,0 19 YAK 7 4 19 30 63,3 20 MNI 8 2 14 30 46,7 21 MFL 2 1 5 30
 16,7 22 PRA 5 5 20 30 66,7 23 PA 6 3 15 30 50,0 24 NAR 4 4 16 30 53,3 25 NA 1 2 7 30
 23,3 26 CAL 7 5 22 30 73,3 27 LS 3 1 6 30 20,0 28 FPL 8 4 20 30 66,7 29 AS 6 3 15 30
 50,0 30 UT 5 2 11 30 36,7 TOTAL 1360 MEAN 45,3 Based on the table above, the
 highest score achieved by students is 76,7, and the lowest score is 13,3. Regarding
 passing grades, only 3 students passed the pre-test, and 27 did not. The results show that
 3 students met the average criteria. After getting the students' individual scores from the
 experimental group, the researcher calculated the average value using the formula
 proposed by Arikunto (2013:315), which is: $Mx = \frac{\sum x}{N}$ $Mx = \frac{1360}{30}$ $Mx = 45,3$

<https://doi.org/10.58421/gehu.v5i1.1020> 6 Table 4. Pre-test Results of Control
 Group No Initials Multiple choice Essay Obtained score Max score Standard score 1 LC 3
 3 12 30 40,0 2 HB 7 5 22 30 73,3 3 MP 2 2 8 30 26,7 4 ER 6 1 9 30 30,0 5 FT 8 4 20
 30 66,7 6 JW 1 2 7 30 23,3 7 GM 5 5 20 30 66,7 8 PI 4 3 13 30 43,3 9 NJ 9 4 21 30
 70,0 10 CK 2 1 5 30 16,7 11 AB 3 3 12 30 40,0 12 MY 7 2 13 30 43,3 13 DH 6 4 18
 30 60,0 14 SU 5 5 20 30 66,7 15 EO 8 1 11 30 36,7 16 BR 1 2 7 30 23,3 17 AF 4 3 13
 30 43,3 18 IL 9 4 21 30 70,0 19 ST 7 1 10 30 33,3 20 CN 3 5 18 30 60,0 21 PJ 2 4 14
 30 46,7 22 KF 6 3 15 30 50,0 23 OH 9 2 15 30 50,0 24 LE 1 5 16 30 53,3 25 UM 5 1 8
 30 26,7 26 RG 8 4 20 30 66,7 27 TY 4 2 10 30 33,3 28 DC 7 3 16 30 53,3 29 IS 6 5
 21 30 70,0 30 LN 2 1 5 30 16,7 TOTAL 1400 MEAN 46,7 According to the table
 above, the highest score obtained by students was 73,3, while the lowest score was 16,7.
 Regarding the pre-test, only 4 students passed, and 26 did not. After obtaining the
 individual scores from the control group, the researcher calculated the average score using
 the formula suggested by Arikunto (2013:315), which is: $My = \frac{\sum y}{N}$ $My = \frac{1400}{30}$ $My =$
 46,7

<https://doi.org/10.58421/gehu.v5i1.1020> 7 Table 5. Post-test Results of Experimental

Group No Initials Multiple choice Essay Obtained score Max score Standard score

1	YRK	11	5	26	30	86,7	2	AZ	14	3	23	30	76,7	3	DAZ	9	2	15	30	50,0	4	IFS	13	4	25	30	83,3	5	MFK	12	5	27	30	90,0	6	MI	15	3	24	30	80,0	7	BP	10	4	22	30	73,3	8	FAA	8	2	14	30	46,7	9	MVL	13	5	28	30	93,3	10	MA	14	4	26	30	86,7	11	SYS	11	3	20	30	66,7	12	BH	9	5	24	30	80,0	13	ZF	12	2	18	30	60,0	14	RA	15	4	27	30	90,0	15	NFH	10	3	19	30	63,3	16	DF	14	5	29	30	96,7	17	SS	13	2	19	30	63,3	18	IFL	8	4	20	30	66,7	19	YAK	12	5	27	30	90,0	20	MNI	11	3	20	30	66,7	21	MFL	15	2	21	30	70,0	22	PRA	9	4	21	30	70,0	23	PA	14	5	29	30	96,7	24	NAR	10	3	19	30	63,3	25	NA	13	4	25	30	83,3	26	CAL	8	2	14	30	46,7	27	LS	11	5	26	30	86,7	28	FPL	12	3	21	30	70,0	29	AS	15	4	27	30	90,0	30	UT	9	2	15	30	50,0	TOTAL	2236,7
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MEAN 74,6 Based on the table above, the highest score is 96,7 and the lowest is 46,7. Regarding the passing grades, 19 students passed, and 11 students received low scores. After getting the individual scores of the experimental group students, the researcher calculated the average score using the formula from Arikunto (2013, p. 315), namely: $Mx = \frac{\sum x}{N}$ $Mx = \frac{2236,7}{30}$ $Mx = 74,6$

<https://doi.org/10.58421/gehu.v5i1.1020> 8 Table 6. Post-test Results of Control

Group No	Initials	Multiple choice	Essay	Obtained score	Max score	Standard score
1	LC	7	3	16	30	53,3
2	HB	5	1	8	30	26,7
3	MP	8	4	20	30	66,7
4	ER	6	2	12	30	40,0
5	FT	9	1	12	30	40,0
6	JW	4	3	13	30	43,3
7	GM	10	4	22	30	73,3
8	PI	7	2	13	30	43,3
9	NJ	6	3	15	30	50,0
10	CK	8	1	11	30	36,7
11	AB	5	4	17	30	56,7
12	MY	11	2	17	30	56,7
13	DH	9	3	18	30	60,0
14	SU	7	1	10	30	33,3
15	EO	4	4	16	30	53,3
16	BR	10	2	16	30	53,3
17	AF	6	3	15	30	50,0
18	IL	8	1	11	30	36,7
19	ST	5	4	17	30	56,7
20	CN	11	2	17	30	56,7
21	PJ	7	3	16	30	53,3
22	KF	9	4	21	30	70,0
23	OH	10	1	13	30	43,3
24	LE	6	3	15	30	50,0
25	UM	8	2	14	30	46,7
26	RG	4	4	16	30	53,3
27	TY	9	1	12	30	40,0
28	DC	7	3	16	30	53,3
29	IS	10	4	22	30	73,3
30	LN	5	2	11	30	36,7
TOTAL				1506,7		MEAN 50,2

Based on the table above, the highest score is 73,3 and the lowest is 26,7. Regarding the passing score, 3 students passed the posttest and 27 failed. After obtaining the individual scores of the control group students, the researcher

calculated the average score using the same formula, and the result was: $M_y = \frac{\sum y}{N}$ $M_y = \frac{1506,7}{30}$ $M_y = 50,2$ After comparing the two groups' results, the experimental group shows a higher average score than the control group after the treatment. The score of the experimental group was 74,6 and the score of the untreated control group was 50,2.

<https://doi.org/10.58421/gehu.v5i1.1020> 9 Table 7. Deviation and Square Deviation of the

Experimental Group	No Initials	Pre-test	Post-test	Deviation	Square Deviation
1 YRK	13,3	86,7	73,4	5387,6	
2 AZ	50,0	76,7	26,7	712,9	
3 DAZ	36,7	50,0	13,3	176,9	
4 IFS	36,7	83,3	46,6	2171,6	
5 MFK	76,7	90,0	13,3	176,9	
6 MI	23,3	80,0	56,7	3214,9	
7 BP	53,3	73,3	20,0	400,0	
8 FAA	43,3	46,7	3,4	11,6	
9 MVL	40,0	93,3	53,3	2840,9	
10 MA	60,0	86,7	26,7	712,9	
11 SYS	26,7	66,7	40,0	1600,0	
12 BH	76,7	80,0	3,3	10,9	
13 ZF	46,7	60,0	13,3	176,9	
14 RA	53,3	90,0	36,7	1346,9	
15 NFH	40,0	63,3	23,3	542,9	
16 DF	23,3	96,7	73,4	5387,6	
17 SS	53,3	63,3	10,0	100,0	
18 IFL	40,0	66,7	26,7	712,9	
19 YAK	63,3	90,0	26,7	712,9	
20 MNI	46,7	66,7	20,0	400,0	
21 MFL	16,7	70,0	53,3	2840,9	
22 PRA	66,7	70,0	3,3	10,9	
23 PA	50,0	96,7	46,7	2180,9	
24 NAR	53,3	63,3	10,0	100,0	
25 NA	23,3	83,3	60,0	3600,0	
26 CAL	73,3	46,7	-26,6	707,6	
27 LS	20,0	86,7	66,7	4448,9	
28 FPL	66,7	70,0	3,3	10,9	
29 AS	50,0	90,0	40,0	1600,0	
30 UT	36,7	50,0	13,3	176,9	
TOTAL	2236,8	1360	876,8	42473,8	
MEAN	74,6	45,3	29,2	1415,8	

1 Based on the table above, the highest Deviation (D) score is 73,4, and the lowest is 26,6. Furthermore, the highest score for Deviation squared (D²) is 5387,6 and the lowest score for deviation squared is 10,9.

Deviation of the Control Group	No Initials	Pre-test	Post-test	Deviation	Square Deviation
1 LC	40	53,3	13,3	176,9	
2 HB	73,3	26,7	-46,6	2171,6	
3 MP	26,7	66,7	40,0	1600,0	
4 ER	30	40	10,0	100,0	
5 FT	66,7	40	-26,7	712,9	
6 JW	23,3	43,3	20,0	400,0	
7 GM	66,7	73,3	6,6	43,6	
8 PI	43,3	43,3	0,0	0,0	
9 NJ	70	50	-20,0	400,0	
10 CK	16,7	36,7	20,0	400,0	
11 AB	40	56,7	16,7	278,9	
12 MY	43,3	56,7	13,4	179,6	
13 DH	60	60	0,0	0,0	
14 SU	66,7	33,3	-33,4	1115,6	
15 EO	36,7	53,3	16,6	275,6	
16 BR	23,3	53,3	30,0	900,0	

<https://doi.org/10.58421/gehu.v5i1.1020> 10 No Initials Pre-test Post-test

Deviation Square Deviation 17 AF 43,3 50 6,7 44,9 18 IL 70 36,7 -33,3 1108,9 19 ST 33,3 56,7 23,4 547,6 20 CN 60 56,7 -3,3 10,9 21 PJ 46,7 53,3 6,6 43,6 22 KF 50 70 20,0 400,0 23 OH 50 43,3 -6,7 44,9 24 LE 53,3 50 -3,3 10,9 25 UM 26,7 46,7 20,0 400,0 26 RG 66,7 53,3 -13,4 179,6 27 TY 33,3 40 6,7 44,9 28 DC 53,3 53,3 0,0 0,0 29 IS 70 73,3 3,3 10,9 30 LN 16,7 36,7 20,0 400,0 TOTAL 1506,6 1400 106,6 12001,4 MEAN 50,2 46,7 3,6 400,0

Based on the table above, the highest deviation (D) is 40 and the lowest is -46,6.

Furthermore, the highest score for the square of the deviation (D²) is 2171,6 and the lowest score for the square deviation is 0. After knowing the deviation of the two groups, the researcher then calculated the average deviation of each group using the formula: $M_x = \frac{\sum x}{N}$ $M_x = 876,8 / 30$ $M_x = 29,2$ $M_y = \frac{\sum y}{N}$ $M_y = 106,6 / 30$ $M_y = 3,6$ After getting the result of the deviation of the experimental and control group, the researcher calculated the sum of the square deviation using the formula proposed by Arikunto (2013,p. 355), and it is; $\sum x^2 = \sum X^2 - (\sum X)^2 / N = 42473,8 - (876,8)^2 / 30 = 42473,8 - (7687778,2) / 30 = 42473,8 - 25625,9 = 16847,9$ $\sum y^2 = \sum Y^2 - (\sum Y)^2 / N = 12001,4 - (106,6)^2 / 30 = 12001,4 - (11363,6) / 30 = 12001,4 - 378,785 = 11622,6$ Based on the result above, the experimental group's squared deviation score is 16847,9, and the control group's squared deviation score is 11622,6. Next, the researcher applied the t-count formula. This formula is used to show how effective the treatment given is. The researcher used the formula proposed by Arikunto (2013,p. 354). $t = \frac{M_x - M_y}{\sqrt{(\frac{\sum x^2}{N_x} + \frac{\sum y^2}{N_y} - 2) (\frac{1}{N_x} + \frac{1}{N_y})}}$

<https://doi.org/10.58421/gehu.v5i1.1020> $t = \frac{29,2 - 3,6}{\sqrt{(16847,9 + 11622,6) / (30 + 30 - 2) (\frac{1}{30} + \frac{1}{30})}}$ $t = 25,6 \sqrt{(28470,5 / 58) (30 + 30 / 900)}$ $t = 25,6 \sqrt{(490,8)(0,07)}$ $t = 25,6 \sqrt{34,356}$ $t = 25,6 / 5,86$ $t = 4,36$

3.2. Discussion The results of this study indicate that the Jigsaw technique had a positive effect on students' reading comprehension. The technique, which involved dividing a reading text into several sections and assigning each group a specific section to read, analyze, and discuss, promoted greater engagement with the reading material. According to Slavin [9], this cooperative learning strategy encouraged active participation, peer teaching, and improved comprehension. This finding is also

consistent with Brown [10], who stated that meaningful language learning occurs when learners actively process information through interaction and communication rather than passive reception. The students responded positively to the Jigsaw technique because it enabled them to interact with complex texts collaboratively rather than work individually. These findings are consistent with previous studies that emphasized the effectiveness of cooperative learning strategies in enhancing reading comprehension. Johnson [11] reported that the Jigsaw technique improved students' understanding of texts and supported meaningful discussion and critical analysis in a collaborative learning environment. Similarly, Ghaith [12] found that the Jigsaw technique significantly enhanced students' reading comprehension by requiring learners to explain assigned sections of text to peers. Grabe and Stoller [13] also argued that reading comprehension develops more effectively when learners interact with texts through discussion, interpretation, and meaning negotiation, which are key processes facilitated by the Jigsaw technique. The Jigsaw technique also supported deeper comprehension through repeated exposure and explanation of the reading material. Rahmawati [14] found that when students were required to teach their assigned sections to others, they were more likely to internalize the material, leading to better retention and understanding. Septiyana [15] also

<https://doi.org/10.58421/gehu.v5i1.1020> 12 noted that this process aligns with the concept that explaining material to others strengthens one's own comprehension, a phenomenon known as the protégé effect. Another advantage of the Jigsaw technique is its emphasis on active learning. Unlike traditional reading activities, in which students read passively and answer questions individually, the Jigsaw technique requires students to interpret, analyze, and synthesize information collaboratively. Sharan [16] stated that cooperative learning strategies, including Jigsaw, improved student engagement, motivation, and overall comprehension. In this study, students actively discussed their assigned sections, thereby deepening their understanding of the text. Moreover, Savage [17] asserted that the Jigsaw technique fostered peer collaboration and enhanced

students' critical thinking and communication skills. Each student assumed responsibility for becoming an "expert" on their section, which promoted mutual learning and accountability. Through peer explanation and discussion, students received immediate feedback that clarified misunderstandings and strengthened comprehension. These results also support Kagan's findings [18], which indicated that cooperative learning strategies improved academic achievement and comprehension by allowing students to share diverse perspectives during group discussions. Group interaction enabled students to fill knowledge gaps and construct a more complete understanding of the text compared to individual learning. Despite its benefits, implementing the Jigsaw technique posed certain challenges. Time management was a primary issue, as the technique required sufficient time for reading, discussion, and explanation within groups. According to Safitri [19], teachers needed to provide clear instructions and closely monitor group activities to ensure effective participation and focus. Without proper guidance, students might lose focus or fail to engage meaningfully with the task. Another challenge involved ensuring equal participation among students. In larger groups, some students tended to be passive, which reduced the technique's effectiveness. Webb [20] emphasized that individual accountability is essential for the success of cooperative learning activities, including Jigsaw. Therefore, teachers must carefully supervise group interactions to ensure that all students contribute actively. Additionally, the number of participants may influence the effectiveness of the Jigsaw technique. While larger sample sizes may produce more generalizable results, smaller classes allow for better monitoring and individualized support. Lenz [21] stated that the optimal group size should be adjusted based on instructional goals and classroom conditions. Beyond improving reading comprehension, the Jigsaw technique also enhanced students' interpersonal skills and learning motivation. Ummah et al. [22] stated that collaborative learning encouraged students to take responsibility for their learning, which increased intrinsic motivation and engagement. Students were more motivated when their understanding contributed directly to group success. Similar to the benefits of the Text Twist game reported by Desmanto [23] and Lie [24], which encouraged vocabulary

exploration and learner autonomy, the Jigsaw

<https://doi.org/10.58421/gehu.v5i1.1020> 13 technique motivated students to engage deeply with reading texts and unfamiliar vocabulary through discussion. This is consistent with Beck et al. [25], who emphasized that learning vocabulary in meaningful contexts and through interaction improves comprehension and long-term retention. In conclusion, the Jigsaw technique proved to be an effective instructional strategy for improving students' reading comprehension. By promoting collaboration, active engagement, and peer learning, the technique enhanced students' ability to understand and discuss complex texts. Although challenges related to time management and student participation were identified, the advantages of the Jigsaw technique outweighed these limitations. Therefore, it is recommended that teachers integrate the Jigsaw technique into reading instruction to foster more effective, meaningful comprehension.

4. CONCLUSION This study shows that the Jigsaw technique supports the development of seventhgrade students' reading comprehension at SMP Negeri 15 Palu by promoting active and collaborative learning. Students become more engaged in understanding descriptive texts through peer interaction and shared responsibility. The findings suggest that Jigsaw can be an effective instructional strategy for improving students' ability to identify main ideas, details, and inferences in reading. However, this study was limited to one school, one grade level, and one text type. Future research should involve broader samples and different text genres to strengthen the generalizability of the results. Overall, this study contributes to English language teaching by demonstrating that cooperative learning can enhance reading comprehension and create more meaningful learning experiences.

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