



INNOVATIVE: Journal Of Social Science Research

Volume 3 Nomor 6 Tahun 2023 Page 3494-3505

E-ISSN 2807-4238 and P-ISSN 2807-4246

Website: <https://j-innovative.org/index.php/Innovative>

Improving Students Reading Comprehension Using Directed Reading Thinking Activity (DRTA) Strategy Based on the Four Levels of Comprehension

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Abstrak

Directed Reading Thinking Activity (DRTA) adalah salah satu strategi yang digunakan dalam pengajaran dan pembelajaran pemahaman bacaan. Penelitian ini menguji efektivitas strategi Directed Reading Thinking Activity (DRTA) pada pemahaman bacaan siswa kelas 10 dalam teks analitis eksposisi berdasarkan empat tingkat pemahaman bacaan. Penelitian ini bersifat kuantitatif dengan jenis pre-eksperimental menggunakan desain kelompok tunggal. Subjek penelitian ini adalah siswa kelas 10 di salah satu sekolah menengah atas di Surabaya. Hasil penelitian ini menunjukkan efektivitas yang signifikan dalam menggunakan strategi Directed Reading Thinking Activity (DRTA) untuk pemahaman bacaan siswa. Hal ini terbukti dengan pengujian hipotesis menggunakan uji t sampel berpasangan, di mana hasilnya adalah nilai t sebesar 8,118 > nilai t-tabel 1,691, yang berarti bahwa H_0 diterima atau terdapat efektivitas yang signifikan dalam menggunakan strategi Directed Reading Thinking Activity (DRTA) pada pemahaman bacaan siswa kelas 10 pada teks eksposisi analitis. Peningkatan juga terjadi pada setiap tingkat pemahaman, tetapi hasil tertinggi diperoleh pada tingkat pemahaman literal dan kritis.

Kata kunci: Pemahaman Bacaan, Directed Reading Thinking Activity, Empat Tingkat Pemahaman Bacaan.

Abstract

Directed Reading Thinking Activity (DRTA) is one of the strategies used in teaching and learning reading comprehension. This study tested the effectiveness of the Directed Reading Thinking Activity (DRTA) strategy on grade 10 students' reading comprehension in text analytical exposition based on four reading comprehension levels. This research is quantitative research with a pre-experimental type using one group design. The subjects used in this study were 10th grade students at one of the senior high schools in Surabaya. This study's results indicate significant effectiveness in using the Directed Reading Thinking Activity (DRTA) strategy for students' reading comprehension. This is evidenced by testing the hypothesis using the paired sample t-test, whose results are $t\text{-value } 8.118 > t\text{-table } 1.691$, meaning that H_a is accepted or there is significant effectiveness in using the Directed Reading Thinking Activity (DRTA) strategy for grade 10 students' reading comprehension on analytical exposition text. Improvement was also experienced at each level of understanding, but the highest results were obtained at the literal and critical comprehension levels.

Keywords: Reading Comprehension, Directed Reading Thinking Activity, Four Levels of Reading Comprehension.

INTRODUCTION

Reading is a gateway to initiating knowledge and mastering other abilities, writing, listening, and speaking. In the world of education until now, reading is one of the learning activities that must be carried out by students and teachers because reading is the central means of learning new information (Yukselir, 2014). As Aziz et al. (2020) explain, English Foreign Language (EFL) students acquire sources of information or knowledge through reading, which is very important in acquiring a foreign language. However, data from the Ministry of Home Affairs library based on a study by the Organization for Economic Co-operation and Development (OECD)'s Program for International Student Assessment (PISA) released in 2019 indicated that Indonesia's literacy level was ranked 62nd out of 70 countries (Larasati et al., 2021). In this case, Indonesia is under the poor category for literacy and included in the low category in terms of literacy.

Low interest in reading will have an impact on a person's reading habits to be low. Most people in Indonesia assess reading activities as activities related to the learning process in school activities. In this case, the researcher found the same situation with 10th grade students

of SMA in Surabaya. Then the teacher explained that the problems faced in learning at this time were that students needed to be more interested in learning, especially in text material where students had to read many English words. The teacher assesses that students are less interested in learning English, especially when studying texts, because students find it difficult to understand reading in English and lack vocabulary mastery. These problems are the same as those stated in research from Hayati & Puspitaloka (2022), which states that students experience difficulty in reading comprehension due to a lack of motivation to learn in students, low English vocabulary mastery, and a lack of interesting in the learning process.

Responding to the low reading skills of students in Indonesia, especially English learners, Doolittle (2006); Wijaya et al. (2021) suggested that one solution to overcome low ability to read comprehension is to use explicit reading strategies for students. In various kinds of reading strategies have been created as a solution to a problem in reading activities, one of which is the Directed Reading Thinking Activity (DRTA) strategy. The DRTA strategy is a strategy used in solving problems in reading comprehension. This statement is supported by Utami & Sugirin (2019) stating that the DRTA Strategy is a concern in fostering students' reading comprehension.

To find the research gap, this study has several previous studies. Nerim (2020) showed the results indicate that the Directed Reading Thinking Activity (DRTA) strategy has a positive effect compared to conventional strategies. Tanjung (2018) stated that the Directed Reading Thinking Activity method was considered adequate in critical reading comprehension. Sari (2016) showed the results of students' reading ability at the four reading comprehension levels, the ability of most students lies at the literal and creative comprehension levels.

Meanwhile in this study, researchers will measure students' reading comprehension skills in analytical exposition texts based on the four levels of reading comprehension after treatment using the Directed Reading Thinking Activity (DRTA) strategy. To find out if there was an increase in students' reading comprehension in analytical exposition texts using the Directed Reading Thinking Activity (DRTA) strategy, the researcher compared the test results before and after receiving the treatment. Furthermore, the researcher will measure students' reading comprehension after using the Directed Reading Thinking Activity (DRTA) strategy based on their reading comprehension level. This study aimed to determine the increase in reading comprehension and at what level of understanding the students mastered the most after being treated using the Directed Reading Thinking Activity (DRTA) strategy

RESEARCH METHOD

This study has two objectives: (1) to determine the effect of using the Directed Reading Thinking Activity (DRTA) strategy on improving reading comprehension in 10th grade students; and (2) to know what level of reading comprehension most students get in understanding the text after using the Directed Reading Thinking Activity (DRTA) strategy.

In this study, researchers needed numerical data to be analyzed statistically so that the type of research used was quantitative with a pre-experimental research design using one group design. The experimental design was used in this study to determine cause and effect or the influence of the independent and dependent variables in the study.

Creswell (2015) describes the independent variable as a variable that can affect the outcome, and the dependent variable is the result generated by the independent variable. In this study, the independent variable is implementing the Directed Reading Thinking Activity (DRTA) strategy based on four levels of understanding. Meanwhile, the dependent variable in this study is the improvement of students' reading comprehension.

The subjects used in this study were 10th grade students at one of the senior high schools in Surabaya. The school was chosen by the researcher to conduct this research based on the condition of the students when learning English, especially reading comprehension, which was considered passive and less interested in learning English due to vocabulary mastery and a lack of understanding of foreign language learning. Besides that, the way the teachers taught in class was too monotonous. This condition was in accordance with the researcher's criteria for implementing the Directed Reading Thinking Activity (DRTA) strategy. To obtain the data needed for research, the research instrument used was a test.

There were two tests conducted in the study, namely the pretest and the posttest. The pretest was conducted to obtain data on students' prior knowledge before learning about analytical exposition texts and before being given treatment using the Directed Reading Thinking Activity (DRTA) strategy. The posttest was carried out at the end of the lesson after students received analytical exposition material and were treated using the Directed Reading Thinking Activity (DRTA) strategy to obtain students' final knowledge data on analytical exposition text material. The two tests given to students consisted of questions in the form of multiple choice and essays, totaling 29 questions. The test is divided into sections according to the four levels of understanding, which will be explained in the table 1.

Table 1. Distribution of Pretest and Posttest Question Types

Levels of Reading Comprehension	Question Form	Consist of ...
Literal	Multiple-choice	10 questions
Interpretive/inferential	Multiple-choice	10 questions
Critical	Essay	5 questions
Creative	Essay	4 questions
TOTAL		29 questions

The stages of data collection to data analysis in pre-experimental research with a one-group research design are: (1) preparing all instruments to be used in research; (2) testing the validity and reliability of the test instrument; (3) carrying out pretest, treatment, and posttest; (4) testing for normality to find out whether the data is normally distributed; (5) analyzing data using a paired sample t-test with the help of the SPSS Statistics 22 program; (6) Calculating the effect size.

RESULT AND DISCUSSION

Result

Based on the pre-test and post-test held to find out whether there is an increase in students' reading comprehension skills after using the Directed Reading Thinking Activity (DRTA) strategy, the results have been categorized based on the five score classifications in table 2 and also presented in table 3 statistical data to find out mean, std. deviation, and std. error mean of both test results.

Table.2 Classification of Student's Pretest and Posttest Scores

Score	Categories	Frequency		Percentage	
		Pretest	Posttest	Pretest	Posttest
80 – 100	Very Good	2	11	6%	31%
66 – 79	Good	8	12	23%	34%
56 – 65	Fair	15	10	43%	29%
41 – 55	Poor	9	2	26%	6%
< 40	Very Poor	1	-	3%	-

Table 3 Student Mean Tests

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	pretest	59.74	35	11.16	1.88

posttest	72.64	35	11.00	1.85
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In the pretest results, fifteen students (43%) were in the "Fair" category, and only two students (6%) managed to get scores in the "Very Good" category. The lowest category obtained in the pretest was "Very Poor" and only one student (3%) got that category. In the posttest results, there were more students in the "Very Good" category which obtained by eleven students (31%), and there are two students (6%) got the "Poor" category during the posttest. Based on the classification results above, it shows that there is an increase in student learning outcomes in the pretest and posttest

To ensure an increase in student learning outcomes, researchers analyzed the pretest and posttest data that had been obtained using a paired sample t-test with the help of the SPSS Statistics 22 program. The results of paired sample statistics show an average pretest score of 59.74 and an average posttest learning outcome of 72.64. The number of respondents used in this benefit is 35 students. Std. The deviation at the pretest is 11.16, and at the posttest is 11.00. The value at Std. The mean error on the pretest is 1.88, and on the posttest is 1.85. Based on the results obtained from the average posttest score of 72.64 > 59.74 pretest score, it is stated in descriptive statistics that there is a difference between pretest and posttest.

Table 4. Paired Sample t-Test

Paired Differences								
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
				Lower	Upper			
Pretest - Posttest	-12.900	9.40103	1.58906	-16.12937	-9.67063	-8.118	34	.000

Based on the table above, the calculated t-value obtained from the Paired Sample T-test is 8,118 and the T-table value is obtained based on the degree of freedom value (df = 34) and a significance value of 0,05 is 1,691. Thus, the value data obtained is t-value 8,118 > t table 1,691, it can be concluded that H0 is rejected and Ha is accepted, or there is an influence on

the use of the Directed Reading Thinking Activity Strategy on students' reading comprehension as seen from the difference in the results of the Pre-test and Post-test.

To find out the difference in size from the test conducted before being given treatment (Pre-test) and the test given after getting treatment (Post-test) will be explained in the calculation below,

$$\begin{aligned}
 \text{Etasquared} &= \frac{8.118^2}{8.118^2 + (35 - 1)} \\
 = \frac{t^2}{t^2 + (N - 1)} &= \frac{65.90}{65.90 + 34} \\
 &= \frac{44.75}{78.75} \\
 &= 0.659
 \end{aligned}$$

Table 1 Cohen's Effect Size

Effect Size Calculation (Eta Squared)			
Statistics Test	Small Effect	Medium Effect	Large Effect
t-Test (Paired & Independent)	0.2	0.5	0.8

Based on the effect size calculation above, the results obtained are 0,659 and are included in the medium category. Based on these calculations, it can be interpreted that the Directed Reading Thinking Activity strategy greatly influences students' reading comprehension in Analytical Exposition text material. This research is in line with Ismail (2018) shows an increase in students' understanding after being treated using the Directed Reading Thinking Activity (DRTA) strategy. It was seen from the posttest scores of all students that they exceeded the minimum completeness criteria. Fatmawati (2015) also stated that the use of the Directed Reading Thinking Activity (DRTA) strategy affected students' reading comprehension and assisted them in learning new words.

Based on the results of the paired sample t-test showed an increase in student learning outcomes. This increase was also experienced in each part of the test. The test is divided into four sections based on the reading comprehension level: literal, interpretive, critical, and creative. Figure 4.1 shows a comparison between the average pretest and posttest scores based on the four sections of the test.

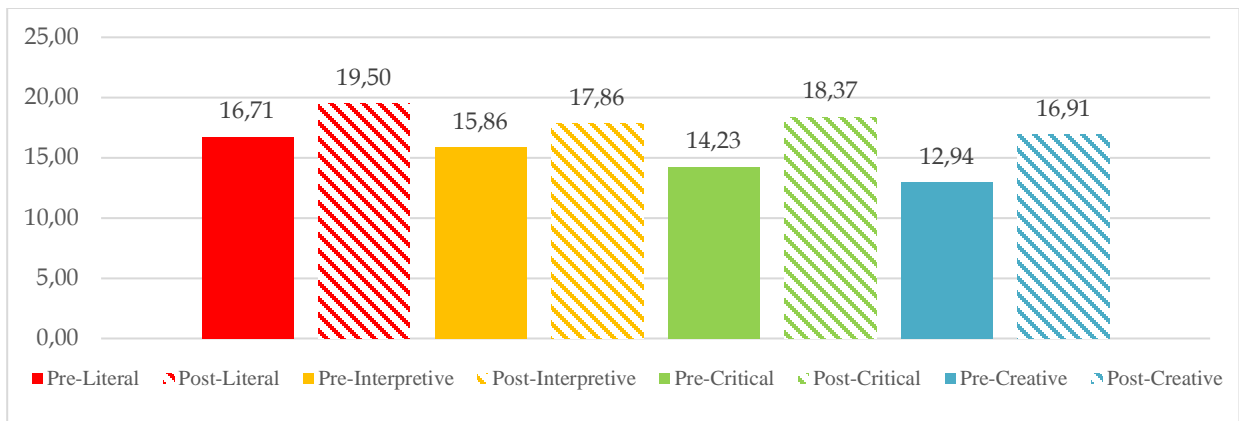


Figure 1. Average Score on Students' Literal Comprehension

The chart shows the average score results from the pretest and posttest, divided into 4 test sections based on the reading comprehension level. Each part of the test has a maximum score of 25 points. In the first diagram, the red color is the result of the score from the literal comprehension level. At the literal comprehension level, the pretest results were 16.71, and the posttest results were 19.50. The yellow color illustrates the score based on the level of interpretive comprehension. The average pretest score at the interpretive level was 15.86, and the posttest results improved by 17.86. Meanwhile, the critical and creative levels were also stated to have experienced improvement. This is evidenced by the results of the posttest at a critical level of 18.37 > 14.23, the average score on the pretest. Then at the creative level, there is also improvement, as evidenced by the average posttest score, which is greater than the pretest average score, 16.91 > 12.94.

After knowing the comparison of the average scores from the pretest and posttest based on the four sections in the test. Table 6 displays in detail the mastery of students' reading comprehension in analytical exposition texts based on four levels of understanding.

Tabel 6 Student's Mastery in Reading Comprehension Level of Analytical Exposition Text

Level of Comprehensions	Level of mastery	Score	Frequency		Percentage	
			Pretest	Posttest	Pretest	Posttest
Literal	Very Good	25	-	7	-	20%
	Good	20 – 24	8	13	23%	37%
	Fair	15 – 19	21	14	60%	40%
	Poor	< 14	6	1	17%	3%
Interpretive	Very Good	25	2	-	6%	-
	Good	20 – 24	5	16	14%	46%
	Fair	15 – 19	17	14	49%	40%

	Poor	< 14	11	5	31%	14%
	Very Good	25	-	-	-	-
Critical	Good	20 – 24	-	15	-	43%
	Fair	15 – 19	18	13	51%	37%
	Poor	< 14	17	7	49%	20%
	Very Good	25	-	-	-	-
Creative	Good	20 – 24	-	7	-	20%
	Fair	15 – 19	18	16	51%	46%
	Poor	< 14	17	12	49%	34%

In the literal section, 21 students (60%) got the "Fair" category, and the highest-level score obtained by 8 students (23%) was the "Good" category during the pretest. In the posttest, there was an increase of 7 students (20%) who managed to get into the "Very Good" category, and in the "Good" category, there was also an increase of 13 students (37%). At the interpretive comprehension level, during the pretest, there were 2 students (6%) who managed to get a "Very Good" score category, and most students, or a total of 17 students (49%) got a "Fair" score category. In the posttest results, there were no students who got the "Very Good" score category, but in the "Good" score category, there was a significant increase from 5 students (14%) to 16 students (46%). Mastery of students' reading comprehension at a critical level during the pretest was in the 2 lower categories, which were divided into 18 students in the "Fair" category and 17 students in the "Poor" category. However, at the time of the posttest, there was a significant increase. 15 (43%) students succeeded in obtaining the "Good" grade category, whereas in the previous test no one had succeeded in obtaining this grade category. In the pretest, the creative comprehension level section also gets the same results as the critical section. Mastery of students' reading comprehension is divided into 2 lower categories, where 18 students score in the "Fair" category and 17 students in the "Poor" category. In the posttest, 7 students (20%) experienced an increase and scored in the "Good" category.

Based on the score classification and the average score in the four test sections according to the level of understanding, it shows that there is an increase in each level of understanding after using the Directed Reading Thinking Activity (DRTA) strategy. The highest posttest results were obtained in the literal and creative comprehension sections. Based on the highest posttest results, it can be concluded that using the Directed Reading Thinking

Activity (DRTA) strategy in analytical exposition material is suitable for increasing literal and creative comprehension. The increase in each part of this understanding is the same as several previous studies such as Satriani et al., (2022) states that the DRTA strategy can improve literal understanding so students can better understand words and remember information written in text (explicit) after learning to read texts using the DRTA strategy; Sari (2016) that it is easier for students to understand the meaning of words and sentences written directly in the text than to understand the author's intent from other forms of writing. The results of an increase in interpretive understanding are also in line with previous research from Altamira & Ilagan (2019), which states that as long as the reading intervention program uses the Directed Reading Thinking Activity strategy, it is considered effective in increasing students' referential and inferential (interpretive) reading comprehension. Tanjung (2018) stated that there was an increase in reading comprehension at a critical level which was known from the results of two cycles in his research.

CONCLUSION

This study showed that the Directed Reading Thinking Activity strategy succeeded in increasing the reading ability of grade 10 students. This increase in reading comprehension ability was obtained from the posttest results which were higher than the pretest results. This strategy can make students active and involved in reading learning activities. The assessment was obtained when implementing the Directed Reading Thinking Activity (DRTA) strategy where students were asked to predict reading from the titles and pictures presented, then they had to read part of the text to confirm the predictions they made by including sentence evidence in the text.

Based on the four levels of reading comprehension, the level of comprehension that students most master after studying the text with the Directed Reading Thinking Activity strategy is literal and critical comprehension because students more easily understand the meaning of words and sentences that are stated explicitly, without ambiguity, and involve their prior knowledge in the text. This shows that the Directed Reading Thinking Activity strategy effectively improves reading comprehension skills, especially at the literal and critical comprehension levels.

From the conclusions above, the researcher hopes that this research can be used as a reference for further research that is in line with this research. Suggestions for future

researchers are expected to be able to develop studies on reading comprehension learning strategies that are more effective in increasing comprehension abilities according to the four levels of understanding with facts that are not discussed in this study, as well as different objects and aspects.

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