

DIRECT READING THINKING ACTIVITY AND STUDENTS' READING COMPREHENSION: AN EXPERIMENTAL RESEARCH

Diah Purwandari

purwandari@gmail.com

Department of Management, Faculty of Economics and Business, University of Muhammadiyah Prof. Dr Hamka, Jakarta, Indonesia

Abstract

The aim of this research is to find out the role of DRTA and Reading Attitude in improving students' reading comprehension. Quasi-experimental design was used to establish the effect of method and attitude on students' reading comprehension. Four classes of management were selected, and assigned as experimental and control group. The experimental group were taught using DRTA and control classes were taught using regular method. ANOVA was used to examine the influence of the main effects and interaction effects of method and attitude on students' reading comprehension. The result indicated that there was a significant difference effect between DRTA and Regular Method on students' reading comprehension. DRTA was more effective in improving reading comprehension. There was, however, no significant difference in students' reading comprehension based on their attitude. This study also found a significant difference effect on students' reading comprehension based on the interaction between method and attitude. DRTA method was to be effective in students with low attitude, while the high attitude was more prone to conventional method.

Keywords: *DRTA, Reading Attitude, Reading Comprehension*

Sari

Tujuan dari penelitian ini adalah untuk mengetahui peran DRTA dan Sikap Membaca dalam meningkatkan pemahaman membaca siswa. Desain eksperimen semu digunakan untuk menetapkan pengaruh metode dan sikap terhadap pemahaman membaca siswa. Empat kelas manajemen dipilih dan ditetapkan sebagai kelas eksperimen dan kelas kontrol, kelas eksperimen diajar dengan metode DRTA dan kelas kontrol diajar dengan metode reguler. ANOVA digunakan untuk menguji pengaruh efek utama dan efek interaksi metode dan sikap terhadap pemahaman bacaan siswa. Hasil penelitian menunjukkan bahwa terdapat perbedaan pengaruh yang signifikan antara Metode DRTA dan Metode Reguler terhadap pemahaman membaca siswa. DRTA terbukti lebih efektif dalam meningkatkan pemahaman membaca. Namun, tidak ada perbedaan yang signifikan dalam pemahaman membaca siswa berdasarkan sikap mereka. Artinya sikap

secara statistik tidak mempengaruhi pemahaman membaca siswa. Penelitian ini juga menemukan interaksi antara metode dan sikap berpengaruh yang signifikan terhadap pemahaman membaca siswa. Metode DRTA lebih efektif pada siswa dengan sikap rendah, sedangkan sikap tinggi lebih cenderung pada metode konvensional.

kata kunci: Direct Reading Thinking Activity (DRTA), Reading Attitude, Reading Comprehension.

Received 2021-06-11

accepted 2021-09-22

published 2021-09-30

APA Citation: Purwandari, D. (2021). Direct reading thinking activity and students' reading comprehension: An experimental research. *Research and Innovation in Language Learning* 4(3) pp.231- 252 <http://dx.doi.org/10.33603/rill.v4i3.5261>

Introduction

Reading is a necessary skill, and it is likely the most important skill for students to master in academic settings (Ahmadi, 2012; Ahmadi et al., 2013; Gilakjani & Ahmadi, 2011; Hermida, 2011). Indeed, students have to read a large volume of course texts, references, and internet material. If students can comprehend ideas, know most of the words in the texts, and extract the meaning from the writing, they are going to be considered as good readers. Good reader students are more likely to do well in school. Therefore students in language learning must master reading. Reading ability will assist students in understanding the text structure, locating the main idea in the text, learning new vocabulary, and learning effective reading strategies to improve their reading comprehension (Duke & Pearson, 2009). Students of ESL/EFL will make more progress and develop further in all academic subjects through strengthening reading skills (Anderson, 2003; Habók et al., 2019; Klimova & Zamborova, 2020).

However, many students have insufficient reading skills and consequently, their reading achievement is poor. Even in college or university level, the researcher has noticed many students are not capable enough know how to read and to understand english materials. They cannot find a way to improve the way they read, especially in relation to studying. They tend to spend a lot of time to read and understand the materials.

Students can have an attempt to improve their reading by recognizing the importance of good reading skills and strategies to their academic access. By recognizing these,

students are expectedly able to encounter some problems in comprehending reading. The problems may be relating to several causes that might influence students' reading comprehension. The most important factor is the reading strategy used in the reading class (Ahmadi, 2012; Marinaccio, 2012). In educational contexts, students have very limited exposure to real language use; the teaching methods are mostly focused on grammar and the students have little or no contact with native speakers or native teachers of English. Many students enter higher education unprepared for reading skills due to their low level of reading strategy knowledge. It is necessary to raise students' awareness of reading strategies which has a strong positive relationship with students' academic achievement (see DeFoe, 1999; Tercanlioqlu, 2004) and (El-Koumy, 2013; H, Turhan, 2017; Par, 2020). One of the reading strategies that is often used is DRTA. DRTA is a comprehension strategy that guides students in asking questions about a text and making predictions while reading. This strategy encourages students to read actively and thoughtfully in order to improve their comprehension (El-Koumy, 2013). Several previous studies on the relationship between DRTA and student reading comprehension have been conducted (Dougherty Stahl, 2008; El-Koumy, 2013; Nerim, 2020; Utomo & Syamsi, 2019; Yazdani & Mohammadi, 2015)

Another important factor which can have a highly significant impact upon students' success in reading is their attitudes toward reading (Ahmadi et al., 2013; Akbari et al., 2017; Nootens et al., 2019; Shelley, 2012). Attitudes and motivation toward reading will lead students to a greater possibility for success (Akkaya & Kirmizi, 2010). The relationship between students' attitudes toward reading and their reading and comprehension achievement has been extensively researched in the literature (ARICAK., 2008; Azizi et al., 2020; Baki, 2018; Hashemi & Na, 2020; McKenna & Kear, 1990; Roomy & Alhawsawi, 2019; Rosales, 2020; Zaccoletti et al., 2020).

These researches have shown that DRTA and students' attitudes toward reading comprehension have a significant effect. Furthermore, the literature emphasizes the importance of DRTA and reading attitudes in academic success. However, when studies on the same topic are analyzed, there appear to be fewer studies that show a one-way relationship between variables, particularly at the university level in Indonesia. The

majority of the studies are comparative studies with two or more variables, and it is difficult to determine the relationship in depth. Therefore, this study is very necessary to be carried out in order to fill the gap.

Literature Review

Direct Reading Thinking Activity (DRTA)

There are several strategies for reading. One of them is DRTA. This is a strategy that guides learners when they ask questions about a text, make forecasts and then read to confirm or refute their forecasts. DRTA encourages students to be active and thoughtful readers, which improves their comprehension (Rizk Samy Welson, 2020). It is intended to develop students' ability to read critically and reflectively.

Stauffer developed DRTA in 1969 to provide readers with a basis for thinking, learning, and testing. Stauffer suggests that these readers will learn to deal with their convictions and their courage. They are not fearful but brave. They are not blind; they are discerning, they are not hurrying, they are deliberate. They're not deceived, they are honest; they're not muddy, they're articulate. Further, he believes that the reading is indeed a thought process (Oppenheim, 1960), in which readers are involved in reconstructing the ideas of the author using their own experience. The researcher may say that DRTA is a reading strategy for building independence readers. DRTA engages readers, in active process that needs their reasoning abilities and ideas (Abd & Al Odwan, 2012). They are not forced to read and to think.

DRTA is designed to guide readers by informational text step by step (Dougherty Stahl, 2008). Reading is divided into three stages (pre-reading, during reading, and post-reading). DRTA also emphasizes prediction (foresight), verification (confirmation), and purposeful reading (resolution). DRTA helps students to understand that prediction and verifications are essential parts of the reading. In the *prediction* process, Students consider what they believe will be covered in the text. This activity will motivate them to read by setting a purpose for what they are about to read. Then, the teacher facilitates a brief discussion during the confirmation process, allowing students to compare their predictions to what was actually presented in the text. Finally, in *resolution* process,

students are able to summarize and evaluate the relevance of the predictions before reading and the information given in text they read. Good readers predict and confirm what will happen in the text automatically and merge their knowledge and ideas with those of the author. Poor readers don't predict or check when they read (Clark & Ganschow, 1995). DRTA helps readers to make predictions before reading and checking predictions (Dougherty Stahl, 2008; Marina et al., 2010).

In addition, DRTA not only promotes active comprehension, but also assists students in developing their reading and thinking processes as well as acquiring and activating their own reading purposes. In DRTA, for example, readers are encouraged to review what they know about a topic, predict what they will learn, and evaluate what they learned and read. DRTA is useful for processing all types of text and extends learning to higher-order thought processes. High order thinking processes means to know how to make connection between interrelated elements of text, justify thought processes, and infer meaning from the text (Tankersley, 2005).

Reading Attitude

Another important factor that can have a significant impact on students' reading success is their attitudes toward reading (Bastug, 2014; Kaniuka, 2010). Attitude is defined as a proclivity to react specifically to an object, situation, or value (which is usually accompanied by feelings and emotion). Because reading is an exigent activity that often involves choice, motivation is crucial to reading engagement (Good, 1973). The attitudes of an individual are learned autonomic trends that guide the thinking and feeling of an individual and that appear to or from an abstract concept or object. Attitudes are certain guidelines that cannot be observed but are supposed to lead to certain observable actions. Attitudes are known to be made up of cognitive, emotional, and behavioral components that change and develop over time. The investigator can conclude from these explanations that the attitudes are ways to feel, think or behave towards an abstract object or concept (Akkaya & Kirmizi, 2010).

Students must have both the ability and the readiness (Seitz, 2010). An important aspect of literacy is a person's reading attitude. Reading is a mindset, with feelings and

emotions that make reading more or less likely (Cecil Smith, 1990). Motivation is the activation of behaviour. Student reading behavior is a key factor in performance reading. Many researchers assume that positive reading attitudes contribute to greater readability. Student interest will affect their English reading proficiency, as it is reflected in their reading comprehension test scores. This will give students with a positive reading attitude more chance to build vocabulary and understanding (Seitz, 2010).

In addition, students who like to read tend to be more attentive and focused when they complete lecture tasks. Students who do not want to read, on the contrary, will likely only read if necessary or refuse to read. This negative reading attitude can have significant effects on the development and progress of students' reading and on their overall academic success. Students with negative attitudes may be less careful and may experience behavioral problems when reading is involved (Joann Mullen, 2003). Since reading attitude can be defined as a willingness to respond positively or adversely to reading, good readers are more positive than poor readers. Both in L1 and L2, the positive sense of reading makes learners easier to read. Just thinking that reading is beneficial is not sufficiently motivating (Yamashita, 2004). In addition, the importance of understanding the attitudes of learners to reading in both L1 and L2 encourages L2 participation in reading.

Reading Comprehension

Many experts have defined “reading” in several ideas. To begin with, Reading can be defined to understand a written text through the most efficient extraction of the required information from it (Grellet, 1981). Reading comprehension is a technique for improving student’s success in extracting useful knowledge from text. It is clear that reading means a reader's activity, to obtain information and useful knowledge from the text. (Mayer, 2003). Nuttal (1996) defines reading as the meaningful interpretation of a printed or written symbol (Qanwal & Karim, 2014). Reading entails recognizing letters in order to recognize words in order to derive meaning from what is read, as well as making connections between the words and ideas presented in the text and the readers' own prior knowledge (Cecil Smith, 1990). Reading is a process of encoding and

decoding thought and language by identifying letters to obtain meanings and reading is also a two-way interaction between the text and the reader (Tierney, 2005).

As a result, reading entails not only constructing meaning from the message in print, but also comprehending or understanding what readers read. Reading is an active, fluent process that involves the reader's ability to extract meaning from printed text and relate it to the reader's prior knowledge in order to perform well in understanding reading. (Anderson, 2003; Day & Anderson, 2000). Based on the definitions, It could be summarized that reading comprehension actually is a psychological process between a writer and a reader in understanding printed symbols in a written text in order to get meaning. It is important to understand that when a writer writes written messages, it requires the readers to be able to properly comprehend the written messages by decoding the words, holding the information in working memory, interpreting the messages, and processing the messages through their knowledge and experiences.

In short, the researcher may conclude that in order to comprehend a reading text and be an effective reader, a reader needs to know the way how to read a text, the models of reading techniques, and the most important thing is the purpose of reading. It entails a reader having general knowledge, obtaining specific details, locating the main idea or theme, learning, remembering, summarizing, and comprehending. Garcia, Jimenez, and Pearson (1998) discovered that unsuccessful students lacked awareness and monitoring strategies for the comprehension process in their studies.

Unfortunately, not everyone can read effectively even in their own language. Sometimes comprehension failure happens and the reader is unable to achieve his/her purpose. When comprehension fails, the reader is unable to achieve his or her goal. This comprehension failure could be as simple as not knowing the meaning of a word, but it could also be due to a lack of one or more of a number of specific reading skills (Swan, 1986). Similarly, Nuttal (1996) says the source of comprehension failure happened because the limitation of reader's vocabulary or general knowledge. There are some factors involved in comprehending a text; (1) lack or poor using of strategies, (2) difficulties in relating to prior knowledge, and (3) lack of reading engagement (Duke &

Pearson, 2009). He also concludes that in order to prevent and addressing those reading difficulties, a reader should improve their word recognition, decoding, and fluency, as well as their content knowledge, strategies, and reading engagement. From these explanations, the researcher underlines that reading difficulties can be caused by several problems which prevent the reader to comprehend the text. One factor that has been mentioned above is reading strategies. The researcher believes that teaching strategy to understand a text will help students to understand the text eventually.

Methods

Research design

In this study, a quasi-experimental design was used to determine the effect of independent variables on dependent variables when the researcher was unable to randomly assign subjects to groups. As an experimental study, this study discovered the effects of various treatments. Because there were two groups – an experimental group that received the special treatment and a control group that did not – the Posttest Control Group Design was chosen. The experimental group was taught using direct reading thinking activity (DRTA), while the control group was taught using the traditional method. By the end of the ten sessions, those students were required to take a Reading Comprehension Test and complete an ASRA questionnaire. The decision as to which group to join was made at random by the flip of a coin.

In this study, the researcher employs two values for each independent variable: Method (X1), which includes DRTA =1 and Conventional Method =2. Meanwhile, reading attitude (X2) is divided into High = 1 and Low = 2, with High Attitude having an ASRA score greater than 140 and Low Attitude having an ASRA score less than 120.

Population and Sample

This study included 121 management students, 52 of whom were male and 69 of whom were female. Given the limited number of samples, this study uses the entire population as a sample. As a result, the sampling technique employed is census sampling. By tossing a coin, the researcher divided the class into two groups: 61 students in the

experimental group and 60 students in the control group. This method was used by researchers because it was the simplest and most efficient way to determine the groups.

Data collection and Analysis

The data of the study were gathered during the second semester of the 2017-2018 academic year. The reading test was used to assess students' comprehension, while the Adult Survey of Reading Attitudes (ASRA) Questionnaire was utilized to determine students' attitudes. The researcher uses two values for each independent variable: Method (X1), which includes DRTA =1 and Conventional Method =2. Meanwhile, reading attitude (X2) is divided into High = 1 and Low = 2, with High Attitude having an ASRA score of 140 or higher and Low Attitude having an ASRA score of less than 120.

This study used two-way ANOVA because it involves two categorical independent variables, method (DRTA and Conventional) and reading attitude (high and low), and the dependent variable is Reading comprehension. ANOVA was used to determine the influence of the main role and interaction effects of categorical independent variable on the dependent variable. The main effect is the direct effect of the independent variable on the dependent variable. While the influence of the interaction or interaction effect is the effect of collective effect of two or more independent variables on the dependent variable. The two-way ANOVA model $Y_{i,j,k} = \mu + \alpha_i + \beta_j + (\alpha\beta)_{i,j} + e_{i,j,k}$ is used.

Results and Discussion

The data were gathered during the first and the second week of the last semester. However, there were some students who did not provide their response to the questioners. There were also a few missing answers found in the reading test. Therefore, the number of the cases used for this study were 95 students, 48 for control group and 47 for experiment group. Since the reading attitude was grouped into high and low attitude, the participants reduced into 51 participants.

Table 1. Participants Between-Subjects Factors

	Value Label	N
Method	DRTA	30
	Conventional	21
Reading Attitude	High	29
	Low	22

Source: Data processing

Table 1 showed that there were 51 students participated in this research consisting of 30 students from experiment group (DRTA) and 21 from control group (conventional method). Whereas 29 students had high attitude and 22 participants had low attitude toward reading.

Tabel 2. Mean Score of Reading Comprehension

Dependent Variable: Reading Comprehension

Method	reading Attitude	Mean	Std. Deviation	N
DRTA	High	75.25	9.456	20
	Low	80.00	5.652	10
	Total	76.83	8.584	30
Conventional Method	High	71.67	8.927	9
	Low	62.50	11.774	12
	Total	66.43	11.390	21
Total	High	74.14	9.289	29
	Low	70.45	12.878	22
	Total	72.55	11.017	51

Source: Data processing

The table showed that the mean of reading score for students in conventional method who had high attitude was 71.67 and the low was 62.50. The total mean score for the conventional method group was 66.43. While the mean score of high attitude students in DRTA group was 75.25 and the low was 80.00. The total mean of this group was 76.83. The table also showed that the mean of both groups for those who had high attitude was 74.14 and the low was 70.45.

Table 3. The mean of Experimental Group and Control Group toward Reading Comprehension

Dependent Variable: Reading Comprehension

Method	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
DRTA	77.625	1.819	73.965	81.285
Conventional Method	67.083	2.071	62.916	71.251

Source: Data processing

Table 3 indicated that experimental group (DRTA) earned the lowest score of 73.965, the highest score of 81.285, the average value of 77.625 and a standard error 1.819.

While the control group (conventional method) earned the lowest score of 62.916, the highest score of 71.251, the mean score of 67.083 with standard error of 2.071. It showed that those who taught by DRTA had batter score than conventional method.

Table 4. The mean of Students’ Reading Attitude toward Reading Comprehension

Dependent Variable: Reading Comprehension				
Reading Attitude	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
High	76.371	1.473	73.409	79.333
Low	71.411	1.799	67.791	75.030

Source: Data processing

Based on the table, we could see that those who had high attitude toward reading earned the lower score of 73.409, the upper score of 79.333 and the score mean of 76.371 with 1.473 standard error. And those who had low attitude toward reading earned the lower score of 67.791, the upper of 75.030 and the mean of 71.411 with the standard error of 1.799. It indicated that the students with high attitude toward reading had better score than those in low attitude.

Table 5. The mean score of Interaction between Attitude and Method toward Reading Comprehension

Dependent Variable: Reading Comprehension					
Method	Reading Attitude	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
DRTA	High	75.250	2.101	71.024	79.476
	Low	80.000	2.971	74.023	85.977
Conventional Method	High	71.667	3.132	65.366	77.967
	Low	62.500	2.712	57.044	67.956

Source: Data processing

In the case of interaction between method and reading attitude toward reading comprehension, the students in experiment group (DRTA) with high attitude got the lower score of 71.024, the upper of 79.476 with the mean of 75.250 and the low attitude earned got the lower score of 74.023, the upper of 85.977 with the mean of 80.00. Whereas the students in control group with high attitude earned the lower of 65.366, the upper of 77.967, while low attitude earned the lower of 57.044., the upper of 67.956 with mean of 62.500.

Table 6. Hypothesis testing Between-Subjects Effects

Dependent Variable: Reading Comprehension

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1919.877 ^a	3	639.959	7.250	.000	.316
Intercept	243180.020	1	243180.020	2754.917	.000	.983
Method	1290.504	1	1290.504	14.620	.000	.237
Attitude	56.633	1	56.633	.642	.427	.013
Method * Attitude	562.278	1	562.278	6.370	.015	.119
Error	4148.750	47	88.271			
Total	274500.000	51				
Corrected Total	6068.627	50				

a. R Squared = .316 (Adjusted R Squared = .273)

Source: Data processing

Table 6 showed that there was a positive, linear relationship between the three variables. The R square value of 0.316 represented the percentage of variation in the dependent variable explained by the independent variables. This meant that methods (DRTA and conventional) and reading attitude explained 31.6 percent of the variance of reading comprehension, while other factors explained 68.4 percent.

Based on the hypothesis testing found that there was significant differences effect on students' reading comprehension based on the method of teaching with p-value of 0.000 less than 0.05. It meant that there was a significant different effect between DRTA and conventional Method on students' reading comprehension. Table 6 also indicated that those who taught by DRTA had better score than conventional method. The result supported the first hypothesis that there was significant difference effect between DRTA and conventional Method on students' reading comprehension.

This study also found that there was no significant difference in students' reading comprehension based on their attitude with p-value of 0.427 greater than 0.05 ($0.427 > 0.05$). It was discovered that students with a positive attitude toward reading had equal reading comprehension as those with a negative attitude toward reading. It meant that students' reading comprehension was unaffected by their attitude. The findings did not support the second hypothesis, which claimed that there was a significant difference in the effect of high and low attitude toward reading on students' reading comprehension. This study also found a significant difference effect on students' reading comprehension

based on the interaction between method and attitude, with a p-value less than 0.05 (0.0150.05). The findings were supported by figures demonstrating that their lines are not parallel. The line between method type and read attitude does not intersect. The figure also demonstrated that students with a low attitude performed better in the DRTA group, while students with a high attitude performed better in the conventional group. It meant that the interaction between method and students' attitude influenced their reading comprehension in different ways.

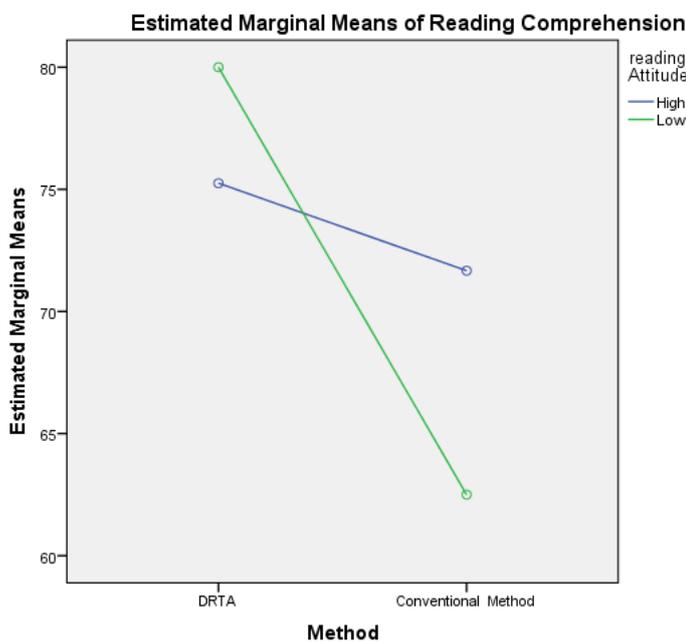


Figure 1: Interaction between Method and Attitude

Because there was an interaction between method and attitude, and we couldn't read the treatment effect directly, we had to reanalyze the data using post hoc analysis, creating a new variable that combined method and attitude. For the new variable, the researcher used four values: DRTA-High = 1, DRTA-Low = 2, Conventional-High = 3, and Conventional-Low = 4. The following were the results of the retest and Tukey test.

Table 7. Tukey Tests of Between-Subjects Effects

Dependent Variable: Reading Comprehension

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	1919.877 ^a	3	639.959	7.250	.000
Intercept	243180.020	1	243180.020	2754.917	.000
Interaction	1919.877	3	639.959	7.250	.000

Error	4148.750	47	88.271
Total	274500.000	51	
Corrected Total	6068.627	50	

a. R Squared = .316 (Adjusted R Squared = .273)

Source: Data processing

Table 7 indicated that among the four combinations of the interaction variables value was significant ($F = 7.250$; $p < 0.05$). So that it could then be proceeded to see the multiple comparisons or post hoc. If the analysis of variance above could only see the difference in terms of a combination of method and attitude, then in the post hoc we could see it in detail.

Table 8. Post Hoc Multiple Comparisons

Dependent Variable: Reading Comprehension

Tukey HSD

(I) Interaction	(J) Interaction	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
DRTA-high	DRTA-low	-4.75	3.639	.564	-14.44	4.94
	Conventional-high	3.58	3.771	.778	-6.46	13.63
	Conventional-low	12.75*	3.431	.003	3.61	21.89
DRTA-low	DRTA-high	4.75	3.639	.564	-4.94	14.44
	Conventional-high	8.33	4.317	.229	-3.16	19.83
	Conventional-low	17.50*	4.023	.000	6.79	28.21
Conventional-high	DRTA-high	-3.58	3.771	.778	-13.63	6.46
	DRTA-low	-8.33	4.317	.229	-19.83	3.16
	Conventional-low	9.17	4.143	.135	-1.87	20.20
Conventional-low	DRTA-high	-12.75*	3.431	.003	-21.89	-3.61
	DRTA-low	-17.50*	4.023	.000	-28.21	-6.79
	Conventional-high	-9.17	4.143	.135	-20.20	1.87

Based on observed means.

The error term is Mean Square(Error) = 88.271.

*. The mean difference is significant at the 0.05 level.

Source: Data processing

The post hoc test in table 8 showed that there was no significant difference between students' reading comprehension using the DRTA method on high and low attitudes ($MD = -4.75$; $p > 0.05$). In addition, there was also no significant difference between students' reading comprehension using the DRTA method on high attitudes and the conventional method on high attitudes ($MD = 3.58$; $p > 0.05$). The test also revealed that there was no significant difference in reading comprehension between students who used DRTA with low attitudes and those who used DRTA with high attitudes ($MD =$

4.75; $p > 0.05$). On the other hand, there was a considerable difference in reading comprehension between students who use DRTA on low attitudes and students who use traditional on low attitudes. ($p = 0.05$; MD = 17.50).

Overall, the results of this test showed that the method's success was dependent on the attitude of the students being treated. We cannot simply conclude from these interactions that DRTA was more effective than traditional methods; it was dependent on the attitude of the students being treated. The DRTA method was thought to be effective on students with low attitudes, whereas conventional method was more likely to be effective on students with high attitudes.

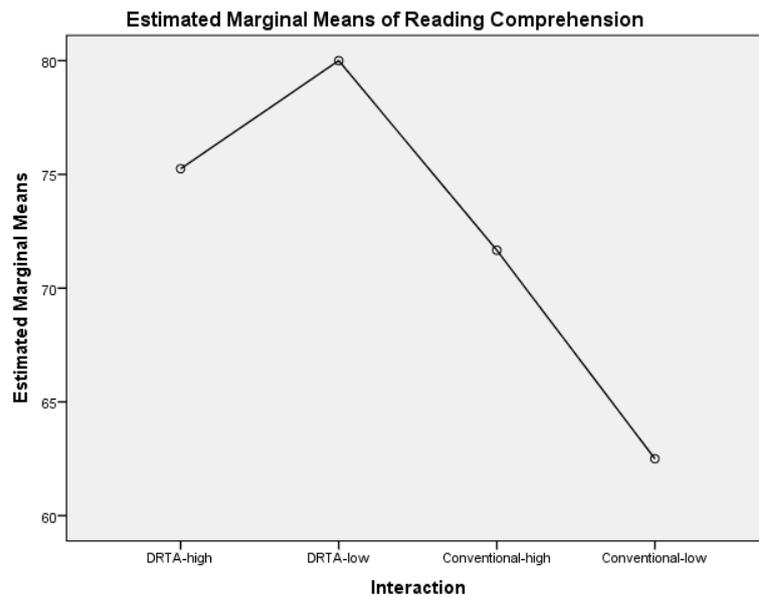


Figure 2: Interaction

This study showed there was some significant difference effect between DRTA and conventional Method on students' reading comprehension. It meant that DRTA as a strategy in reading activity has statistically showed positive effect in improving reading comprehension. DRTA is a comprehension strategy that helps students be active and thoughtful readers. DRTA encourages active reading in improving understanding. Students are able to focus their attention on the reading text which triggers their curiosity in reading. This supports the findings of previous researches which also found that there is a significant correlation between strategy use and reading comprehension. It

is interesting to note that DRTA not only improving students' ability to understand the text, but also increasing students' reading ability.

In the case of Reading attitude, this study concluded that there was not statistically significant difference effect between high and low attitude on students' reading comprehension. It was contrast with the result of previous researches, (Mihandoost et al., 2011; Yamashita, 2004). On the study related to students' attitude toward reading, Yamashita mentioned the importance to understand learners' attitudes toward reading for encouraging learners' involvement in reading. This contradictory result might have happened because the sample in this study involved 121 students but some of them did not provide their response to the questionnaires given. This means that the results of this study cannot be generalized to other students who experience academic failure in reading.

Related to some theories supported the idea that reading strategy and attitude toward reading will influence the performance in reading, the result of the study showed a positive effect to reading comprehension. It meant that the interaction between method and students' attitude influenced differently to the students' reading comprehension. This research showed that students with low attitude performed better in DRTA, meanwhile students with high attitude performed better in conventional method (Elizabeth, 2013.) DRTA is a comprehensive strategy which guides and helps students to be active and thoughtful readers. DRTA strengthens and enhances students' reading comprehension. Low attitude students were guided and helped in improving their reading activities after using DRTA.

On the other hand, students with high attitude performed better in Conventional method. This was happened because the conventional method places mainly teachers in charge of teaching and learning (Boumová, 2008). Students only hear the explanations and examples of the teacher. Students should memorize and practice the grammatical rules in English text traduction/transaltion and analysis. These results supported the third hypothesis that the interaction of methods and reading attitudes among students' reading comprehension was significant (Becker & McElvany, 2018; Erik De Corte, 2001; Park,

2011)and (ARICAK., 2008). Both DRTA and reading attitude give positive effect on students' reading comprehension. Here the researcher wants to say that students will be motivated to read based on various personal reasons. If they do not have any intentions in reading, they refuse to read. To understand students' attitudes towards reading means to understand their feelings and thought which lead them to enjoy reading.

Conclusion & Rrecommendation

The Direct Reading Thinking Activity (DRTA) is a comprehensive strategy that helps students be active and thoughtful reader. DRTA promotes active reading as a means of improving comprehension. Students can focus their attention on the reading text, which triggers their interest in reading. The statement supported the study's findings that DRTA as a reading strategy has a statistically significant positive effect on improving reading comprehension. The perception of reading is influenced by one's attitudes toward reading. Feelings and emotions, for example, may play a role in motivating students to read. Because reading is a psycholinguistic process that involves the interaction of language and thought, a reader must be able to read with skill and will. It means that a reader's mind, feelings, and emotions influence how enjoyable the reading is. However, this theory was contradicted by the study's findings, which revealed that there was no statistically significant difference in the effect of high and low attitude on students' reading comprehension.

The interaction of method (DRTA and Conventional) and reading attitude had a significant impact on students' reading comprehension. When a reader cannot relate his or her thoughts and feelings to the text, he or she tends to avoid reading. When a reader is not in the mood to read, he or she will not have any intentions of doing so. If a reader enjoys reading, it will influence his or her reading habits. Some difficulties in comprehending reading will have a negative impact on reading's attractiveness. The two-way ANOVA test result revealed a positive, linear relationship between the three variables. The method (DRTA and conventional) and reading attitude could explain 31.6 percent of the variance in reading comprehension. DRTA was to be effective in students with a low attitude, whereas students with a high attitude were more likely to use the conventional method.

Reading comprehension is essential for all academic subject areas, according to the conclusions. It is especially important for university students because many books and research papers are written in English. In this study, DRTA significantly improved students' reading comprehension. DRTA assists students in becoming critical readers by allowing them to examine their own thoughts in order to ask questions and seek solutions. Along with the research findings, it is suggested that students be introduced to appropriate and applicable reading strategies that will assist them in understanding the text and developing their reading comprehension.

Despite the fact that the findings of this study revealed no significant difference between high and low reading attitude and reading comprehension, it is suggested that more research on reading attitude and reading comprehension be conducted with larger samples and sampling techniques that can represent the population. As a result, the data obtained will be more reliable. A positive attitude toward reading is thought to be a foundation for reading comprehension and, of course, other language skills needed for academic success. It is suggested that teachers try to understand their students' reading attitudes as well as their reading performance. Teachers must be aware of their students' beliefs and attitudes in order to deal with them appropriately. Providing strategies and activities in meaningful contexts will assist students in incorporating reading attitudes.

References

- Abd, T., & Al Odwan, A.-H. (2012). The Effect of the Directed Reading Thinking Activity through Cooperative Learning on English Secondary Stage Students' Reading Comprehension in Jordan. *International Journal of Humanities and Social Science*, 2(16), 138–151. www.ijhssnet.com
- Ahmadi, M. R. (2012). Reciprocal Teaching Strategy as an Important Factor of Improving Reading Comprehension. *Journal of Studies in Education*, 2(4), 153–173.
- Ahmadi, M. R., Ismail, H. N., & Abdullah, M. K. K. (2013). The relationship between students' reading motivation and reading comprehension. *Journal of Education and Practice*, 4(18), 9. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.921.6355&rep=rep1&type=pdf>
- Akbari, H., Ghonsooly, B., Ghazanfari, M., & Shahriari, H. (2017). Attitude toward reading: L1 or L2 or both. *SAGE Open*, 7(3), 1–10. <https://doi.org/10.1177/2158244017717303>

- Akkaya, N., & Kirmizi, F. S. (2010). Relationship between attitudes to reading and time allotted to writing in primary education. *Procedia - Social and Behavioral Sciences*, 2(2), 4742–4746. <https://doi.org/10.1016/j.sbspro.2010.03.761>
- Anderson, N. (2003). Scrolling, clicking, and reading English: Online reading strategies in a second/foreign language. *The Reading Matrix*, 3(3), 1–33.
- ARICAK., R. S. M. T. J. J. (2008). INFLUENCE OF READING ATTITUDE ON READING ACHIEVEMENT: A TEST OF THE TEMPORAL-INTERACTION MODEL. *Psychology in the Schools*, 45(10), 1010–1022. <https://doi.org/10.1002/pits>
- Azizi, M., Tkáčová, H., Pavliková, M., & Jenisová, Z. (2020). Extensive Reading and the Writing Ability of EFL Learners: the Effect of Group Work. *European Journal of Contemporary Education*, 9(4), 726–739. <https://doi.org/10.13187/ejced.2020.4.726>
- Baki, Y. (2018). The Effect of Reading Motivations of 6th, 7th and 8th Grade Students on Reading Attitudes: A Structural Equation Modeling. *International Online Journal of Educational Sciences*, 10(1). <https://doi.org/10.15345/iojes.2018.01.002>
- Bastug, M. (2014). The Structural Relationship of Reading Attitude, Reading Comprehension and Academic Achievement. *International J. Soc. Sci. & Education*, 4(4), 2223–4934.
- Becker, M., & McElvany, N. (2018). The interplay of gender and social background: A longitudinal study of interaction effects in reading attitudes and behaviour. *British Journal of Educational Psychology*, 88(4), 529–549. <https://doi.org/10.1111/bjep.12199>
- Boumová, B. V. (2008). *Traditional vs . Modern Teaching Methods : Advantages and Disadvantages*. 11.
- Cecil Smith, M. (1990). A Longitudinal Investigation of Reading Attitude Development from Childhood to Adulthood. *Journal of Educational Research*, 83(4), 215–219. <https://doi.org/10.1080/00220671.1990.10885958>
- Day, R., & Anderson, N. (2000). Exploring Second Language Reading: Issues and Strategies. *TESOL Quarterly*, 34(1), 184. <https://doi.org/10.2307/3588105>
- Dougherty Stahl, K. A. (2008). The effects of three instructional methods on the reading comprehension and content acquisition of novice readers. *Journal of Literacy Research*, 40(3), 359–393. <https://doi.org/10.1080/10862960802520594>
- Duke, N. K., & Pearson, P. D. (2009). Effective Practices for Developing Reading Comprehension. *Journal of Education*, 189(1–2), 107–122. <https://doi.org/10.1177/0022057409189001-208>
- El-Koumy, A. S. A. (2013). The Effects of the Directed Reading-Thinking Activity on EFL Students' Referential and Inferential Comprehension. *SSRN Electronic Journal*, December. <https://doi.org/10.2139/ssrn.2365150>
- Elizabeth, H. (2013). *STUDENT READING ATTITUDES IN RELATION TO THE INSTRUCIONAL APPROACH*. 1–20.
- Erik De Corte, L. V. and A. V. D. V. (2001). Improving text comprehension strategies in upper primary school children: A design experiment. *British Journal of*

- Educational Psychology*, 71, 531–559.
<http://www.ncbi.nlm.nih.gov/pubmed/18708246>
<http://doi.wiley.com/10.1002/pits.10092>
<http://palm.mindmodeling.org/cogsci2010/papers/0051/paper0051.pdf>
<http://onlinelibrary.wiley.com/doi/10.1002/pits.21681/full>
<http://www.pubmedcentral.nih.gov/a>
- Gilakjani, A. P., & Ahmadi, M. R. (2011). A Study of Factors Affecting EFL Learners' English Listening Comprehension and the Strategies for Improvement. *Journal of Language Teaching and Research*, 2(5), 977–988.
<https://doi.org/10.4304/jltr.2.5.977-988>
- H, Turhan, B. & Z. Ö. (2017). *International Journal of Language Academy Metacognitive Awareness of reading Strategies and Academic Achievement In Reading and Writing : A Correlational Research in An Okuma Stratejilerine Dair Bilişüstü Farkındalık v e İleri Okum.* 5(June 2017), 23–36.
<https://doi.org/http://dx.doi.org/10.18033/ijla.3591>
- Habók, A., Magyar, A., & Hui, S. K. F. (2019). The effects of EFL reading comprehension and certain learning-related factors on EFL learners' reading strategy use. *Cogent Education*, 6(1), 1–19.
<https://doi.org/10.1080/2331186X.2019.1616522>
- Hashemi, A., & Na, K. S. (2020). The Eurasia Proceedings of Educational & Social Sciences (EPESS) The Eurasia Proceedings of Educational The Effects of Using Blended Learning in Teaching and Learning English: A Review of Literature. & *Social Sciences (EPESS)*, 18(Whittaker 1976), 173–179. www.isres.org
- Hermida, D. J. (2011). The Importance of Teaching Academic Reading Skills In First-Year University Courses. *SSRN Electronic Journal*, November.
<https://doi.org/10.2139/ssrn.1419247>
- Kaniuka, T. S. (2010). Reading Achievement, Attitude Toward Reading, and Reading Self-Esteem of Historically Low Achieving Students. *Journal of Instructional Psychology*, 37(2), 184–188.
<http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=52842373&site=ehost-live&scope=site>
- Klimova, B., & Zamborova, K. (2020). Use of mobile applications in developing reading comprehension in second language acquisition —A review study. *Education Sciences*, 10(12), 1–11. <https://doi.org/10.3390/educsci10120391>
- Marina, L., Acosta, E., & Ferri, M. M. (2010). Reading Strategies to Develop Higher Thinking Skills for Reading Comprehension. *PROFILE Issues in Teachers' Professional Development*, 12(1), 107–123.
- Marinaccio, J. (2012). The most effective pre-reading strategies for comprehension. *Education Masters*, 208. http://fisherpub.sjfc.edu/education_ETD_masters
- McKenna, M. C., & Kear, D. J. (1990). Measuring Attitude Toward Reading: A New Tool for Teachers. *The Reading Teacher*, 43(8), 626–639.
<https://doi.org/10.1598/rt.43.8.3>
- Mihandoost, Z., Elias, H., Sharifah, P., & Mahmud, R. (2011). A Comparison of the Reading Motivation and Reading Attitude of Students with Dyslexia and Students without Dyslexia in the Elementary Schools in Ilam, Iran. *International Journal of*

- Psychological Studies*, 3(1), 17–27. <https://doi.org/10.5539/ijps.v3n1p17>
- Nerim, N. (2020). Scrutinizing Directed Reading Thinking Activity (Drta) Strategy on Students' Reading Comprehension. *Journal of Languages and Language Teaching*, 8(2), 128. <https://doi.org/10.33394/jollt.v8i2.2284>
- Nootens, P., Morin, M. F., Alamargot, D., Gonçalves, C., Venet, M., & Labrecque, A. M. (2019). Differences in attitudes toward reading: A survey of pupils in grades 5 to 8. *Frontiers in Psychology*, 9(JAN), 1–13. <https://doi.org/10.3389/fpsyg.2018.02773>
- Par, L. (2020). The relationship between reading strategies and reading achievement of the EFL students. *International Journal of Instruction*, 13(2), 223–238. <https://doi.org/10.29333/iji.2020.13216a>
- Park, Y. (2011). How motivational constructs interact to predict elementary students' reading performance: Examples from attitudes and self-concept in reading. *Learning and Individual Differences*, 21(4), 347–358. <https://doi.org/10.1016/j.lindif.2011.02.009>
- Qanwal, S., & Karim, S. (2014). Identifying correlation between reading strategies instruction and 12 text comprehension. *Journal of Language Teaching and Research*, 5(5), 1019–1032. <https://doi.org/10.4304/jltr.5.5.1019-1032>
- Rizk Samy Welson, marina. (2020). The Directed Reading Thinking Activity for Enhancing Reading Comprehension and Metacognitive Awareness among English Department Faculty of Education Students. *مجلة كلية التربية*, 31(3), 69–101. <https://doi.org/10.21608/jfeb.2020.122181>
- Roomy, M. Al, & Alhawsawi, S. (2019). Understanding Reading Strategies of EFL Saudi Students. *English Language Teaching*, 12(6), 33. <https://doi.org/10.5539/elt.v12n6p33>
- Rosales, S. S. (2020). Seeing the 'Hidden' Disability: A Quantitative Analysis of the Reading Comprehension in English of Learners Suspected with Dyslexia. *Asian EFL Journal*, 27(44), 448–477.
- Seitz, L. (2010). Student Attitudes toward Reading: A Case Study. *Journal of Inquiry and Action in Education*, 3(2), 30–44.
- Shelley, C. (2012). *A Study of the Relationship Between Student Attitudes Toward Reading and Achievement in Reading in Fifth-Grade Students*.
- Utomo, A. C., & Syamsi, K. (2019). *The Effect of PBL and DRTA on Critical Thinking and Reading Comprehension to Students in Elementary School*. 326(Iccie 2018), 95–101. <https://doi.org/10.2991/iccie-18.2019.17>
- Yamashita, J. (2004). Reading attitudes in L1 and L2. *Reading in a Foreign Language*, 16(1), 1–20. <http://nflrc.hawaii.edu/rfl/April2004/yamashita/yamashita.html>
- Yazdani, M. M., & Mohammadi, M. (2015). The explicit instruction of reading strategies: Directed reading thinking activity vs. guided reading strategies. *International Journal of Applied Linguistics and English Literature*, 4(3), 53–60. <https://doi.org/10.7575/aiac.ijalel.v.4n.3p.53>
- Zaccoletti, S., Altoè, G., & Mason, L. (2020). Enjoyment, anxiety and boredom, and their control-value antecedents as predictors of reading comprehension. *Learning*

and Individual Differences, 79(March), 101869.
<https://doi.org/10.1016/j.lindif.2020.101869>

Conflict of Interest

No potential conflict of interest is reported.

Author Biography

Diah Purwandari was born on January 29th 1970 in Pekanbaru, Riau. She is currently an English lecturer in the Faculty of Economy and Business, University of Prof. DR. Hamka. She received her Master in English from Prof. DR. Hamka University Jakarta in December 2012 and obtained her Bachelor Degree in English from IKIP Jakarta in October 1997. She also participated in several TOEIC and TOEFL training. She lives in Cilangkap-Tapos, Depok, West Java.