

## The Effect of Directed Reading Thinking Activity (DRTA) Method on Students' Reading Comprehension for State Islamic Senior High School

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### ABSTRACT

This study aims to find out the effect of using Directed Reading Thinking Activity (DRTA) Method on students' reading comprehension. A quasi-experimental design was used with pre-test and post-test non-equivalent control group design. The number of participants was 63 students divided into an experimental group (31) and a control group (32) of the students of MAN 1 Pekanbaru. Two research questions and four hypotheses were posed in this study. Before conducting the treatment, pretest was administered, and posttest was administered after the treatment. Independent and dependent (paired) sample t-tests were used to analyze the data. The research finding showed a significant effect of using Directed Reading Thinking Activity (DRTA) method on students' reading comprehension. Using DRTA method contributed 72% on students' reading comprehension, meanwhile the control group using non-DRA method contributed 49%. At last, it can be inferred that DRTA method is suitable to apply in teaching reading comprehension at State Islamic Senior High School (MAN) 1 Pekanbaru.

**KEYWORDS:** Directed Reading Thinking Activity (DRTA) method, teaching reading, reading comprehension, narrative texts

### 1 INTRODUCTION

English is widely used in many fields, particularly in transferring science, technology, trades, politics, and businesses. Fries (2008,p.14) states that English plays a very important role in the major aspects of life in this global era. It is the most widely spoken languages in the world so that English today is fast becoming a Lingua-Franca of international trade and commerce. With the challenges posed by globalization and technological advances, Information and Communication Technology (ICT) has become the most crucial one in gathering scientific information available on electronic media. It is also observed that most of the books of science and technology are written in English. It is used not only by native speakers but also by non-native speakers to communicate each other. Brown (2001, p.232) states that there are four skills in English that should be master. They are speaking, listening, writing, and reading. Reading is one of the four language skills that can support students in English.

Teaching reading is a process in the English learning in which there are interactions between the teacher and students through reading text. It means that teacher guides the students to find the information from the text and the students catch meaning of the text. Nunan (2003, p. 69) states that reading is a set of skill that involves making sense and deriving meaning from the printed word. It means that reading is ability to get information from written text such as making inference, and finding main idea. Then, Harris & Graham (2007) claim that reading comprehension is the process of constructing meaning by coordinating a number of complex processes that include word reading, word and world knowledge and fluency.

English curriculum in Indonesia, reading skill takes more portions compared to three other skills of listening, speaking and writing. In English text book, reading is more dominant part, and it can be seen that the English test for national examination and entrance test for universities provide more questions on reading comprehension. Abdullah Hasan, et.al (2017) state that the readers should master the comprehension skill. It requires prior knowledge to have the comprehension skill.

Based on preliminary study, the students in majority of junior and senior high schools in Pekanbaru face a great difficulty in comprehending the reading text. They fail to determine the topic, main idea, inference, reference and generic structure of reading text. On the other hand, the English teachers still focus on teacher centered instruction and only few are active, creative and alert to do innovation in teaching and learning process even though they have followed English teaching training and workshop especially the 2013 curriculum training.

Based on the curriculum and syllabus (2015/2016), the students are required to be able to comprehend many kinds of genres, such as: descriptive, narrative, recount, etc, which are useful for communication purpose, related to their environment (Badan Standar Nasional Pendidikan, 2006, p.31). One of the reading genres that is familiar and taught to state Islamic senior high school (MAN) 1 Pekanbaru is reading comprehension on narrative text. Since the students always face reading comprehension through genre, they must know the types of text, and automatically they are able to comprehend narrative text. This study just focuses on narrative text.

The teacher needs to apply an appropriate method or a technique to help them solve their problem and to improve the students' ability in comprehending of the text,. Based on the problems above, Directed Reading Thinking Activity (DRTA) method is a popular method for engaging the students in reading narrative text for understanding. Allan, et.al (2005,p.42) states that the DRTA method is designed to support students' reading comprehension by guiding them to key points in the text and providing opportunities to discuss the meaning with their classmates. The DRTA is a reading comprehension/critical thinking activity for the building knowledge part of a reading lesson with either narrative or informational text.

## **2 OBJECTIVES AND RESEARCH QUESTIONS**

The main aim of this study is to find out the effect of using Directed Reading Activity (DRA) method and its effect size on students' reading comprehension at MAN 1 Pekanbaru. The specific objectives are as follows:

- a. To determine the significant effect of using Directed Reading Thinking Activity method on students' reading comprehension.

- b. To determine the effect size of using Directed Reading Thinking Activity method on students' reading comprehension.

Two research questions are formulated as follows:

1. Is there any significant effect of using Directed Reading Thinking Activity method on students' reading comprehension?
2. How big is the effect size of using Directed Reading Thinking Activity method on students' reading comprehension?

### 3 MATERIALS AND METHODS

The design of this study was a quasi-experimental research design with pretest and posttest non-equivalent group design. Cohen, et.al ( 1998) state that this research design is one of the most commonly used quasi-experimental design in educational research. quasi-experimental design was selected for this study because of the following factors : (a) the administrative constraints by the selected school that does not allow for the random selection, (b) Based on the real condition, it is not realistic to conduct the study in true experimental design due to the complexity of human behavior and language behavior, and (c) the difficulty of defining variables involved in language learning.

The participants of this study were 63 students of State Islamic Senior High School (MAN) 1 Pekanbaru that consisted of an experimental group (31 students) and a control group (32 students), and a volunteered teacher applied the treatment of DRTA method. The sample of the research was cluster sampling that randomly selected groups, not individuals. All participants of selected groups had similar characteristics. A good sample is one that is representative of the population from which it is selected, and cluster sampling is the best single way to obtain a representative sample. (Gay, et.al. 2003). The data were obtained bu using pre-test and post-test. The pre-test was administered to determine the basic mastery of students' reading comprehension before being given the treatment. The post-test was done to determine the students' ability of reading comprehension. This research was carried out within four meetings or eight-class hours within one month. DRTA method was used for the experimental group, while the control group was treated by using non-DRTA method. Alan Crawford, et.al (2005) state the procedure of DRTA methods is as follows:

- a) The teacher prepares the text by marking four or five good stopping points.
- b) The teacher prepares DR-TA chart and reminds them not to read beyond the stopping points. They will be making predictions and reading to confirm those predictions.
- c) The teacher asks the students the little of the story; talks about the genre author, shows the cover illustration, and reads the title. Then, he asks for their prediction about what will happen in the story. Write those predictions in the space labeled. Ask the students why they think so
- d) The teacher asks the students to the first stopping point and considers the prediction they made before, and say what actually happened.
- e) The teacher reviews the prediction and asks which ones are coming true so far. Then, the teacher asks them to read aloud to confirm or disconfirm their predictions.

- f) The teacher asks the students to predict the next block of text. Write and read, then check their prediction against what did happen, make new predictions, and dictate the evidence for those predictions.
- g) Finally, the teacher asks the students to check the last predictions against what actually happened in the story, and dictate their findings about what happened, to be recorded in the space on the form

The DRTA method leads the students to be creative thinking, imaginative, and joyful learning to achieve the objectives of the lesson. Besides, teaching and learning process automatically becomes a student-centered instruction with modern pedagogy through the integration of the strength of attitude, skill and knowledge.

#### 4 RESULTS

The data in this study were analyzed by using a descriptive statistics of finding frequency counts, percentages, total scores, mean scores and standard deviation; while an independent sample t-test and a paired sample t-test with Eta Square of inferential statistics were used to analyze the data in order to test hypotheses based on participants' responses of pretest and post-test. The data of Table 1 were analyzed by descriptive statistics as follows:

Table 1. Results of students' reading comprehension pre-test and post-test scores

	N	Sum	Mean	S.D
Pre Exp.	31	2584.00	58.96	8.76
Pre Control Group	32	1884.00	58.87	11.77
Post Exp.	31	2488.00	80.25	6.27
Post Control	32	2388.00	74.62	9.23
Valid N	31			

Based on Table 1, it can be determined that the number of participants at MAN 1 Pekanbaru in the experimental group is 31 with pre-test standard deviation (8.76), post-test standard deviation (6.27), with pre-test mean score (58.96) and post-test mean score (80.25), and the number of participants in the control group is 32 with pre-test standard deviation (11.77), post-test standard deviation (9.23), pre-test mean score (58.87), and post-test mean score (74.62). Four hypotheses were analyzed by using inferential statistics as follows:

##### Hypothesis 1

The procedure of inferential statistics begins with the statistical test on the following alternative hypothesis:

Ha1: There is a significant difference on students' reading comprehension pre-test mean score between an experimental group and a control group.

Table 2. The Analysis of Independent Sample T-test of Pre-test reading comprehension scores between an Experimental group and a control Group is presented on Table 2.

Subject	R.G	Mean	S.D	N	Df	T	Sig.(2-tailed)
Pre-test	EG.1	57.80	12.30	31	61	-0.35	.726
	CG.2	58.87	11.77	32			

P>0.05.

Based on Independent sample t-test analysis for pretest mastery of an experimental group 2 and a control groups on Table 2 above, it shows no significant difference is found at pretest reading ability. The result shows that the mean scores do not differ much between both groups. It could be determined that the subjects in both groups are equivalent. Mean for the experimental group is 58.96 and SD =8.76 and the mean for the control group = 58.87 and SD= 11.77.

The analysis of Table 2, of the first hypothesis Ha1 is rejected and Ho1 is accepted. So, it can be concluded that “There is no significant difference of students’ reading pre-test mean scores between an experimental group and a control group.

### Hypothesis 2

The procedure of inferential statistics begins with the statistical test on the following alternative hypothesis:

Ha1: There is a significant difference on students’ reading comprehension post-test mean scores between an experimental group and a control group.

Table.3. The Analysis of Independent Sample T-test of Post-test reading comprehension scores between an Experimental group and a control Group is presented on Table 3.

Subject	R.G	Mean	S.D	N	Df	T	Sig.(2-tailed)
Post-test	EG.	80.25	6.27	31	61	2.823	.006
	CG	74.62	9.23	32			

$P < 0.05$ .

Based on Independent T-test analysis for post-test reading comprehension score of the experimental group and the control group on Table 3 above, it shows that there is a significant difference at post-test reading comprehension between an experimental group and a control group. T-test result is 2.823, its df is 61, standard deviation of an experimental group is 6.27 and a control group is 9.23. Mean score for EG is 80.25 and CG is 74.62. So, in the conclusion  $p = 0.006$ , the 2-tailed value is smaller than 0.05 ( $p < 0.05$ ). The result shows that the mean scores differ much between both groups. It could be determined that the subjects in both groups are not equivalent after being given the treatment.

Table 3, of the second hypothesis Ha2 is accepted and Ho2 is rejected. So, it can be concluded that “There is a significant difference on students’ reading comprehension post-test mean scores between an experimental group and a control group.

### Hypothesis 3

The procedure of inferential statistics begins with the statistical test on the following alternative hypothesis:

Ha3: There is a significant effect on students’ reading comprehension between pre-test and post-test mean scores in the experimental group

Table 4. The Analysis of Paired or Dependent Sample T-test between pre-test and post-test reading comprehension mean score in the Experimental group is presented on Table 4

Subject	G.S	Mean	S.D	N	Df	T	Sig.(2-tailed)
Effect	Pre-test	57.80	12.30	31	30	-8.907	.000
	Post-test	80.25	6.27	31			

$P < 0.05$ .

From Table 4 above, the output of paired sample t-test shows that the t-test result is -8.907, its df is 30, by comparing number of significance. If probability>0.05, null hypothesis (H0) is accepted. If probability<0.05 alternative hypothesis (Ha) is accepted. Because the significance is 0.000 < 0.05, thus, Ha is accepted while H0 is rejected.

Then, the percentage of significant effect is found out between pre-test and post-test of the experimental classes by finding out the effect size or eta-squared as follows:

$$\tilde{\eta}^2 = \frac{t^2}{t^2 + n - 1}$$

$$\tilde{\eta}^2 = \frac{(-8.907)^2}{(-8.907)^2 + 31 - 1}$$

$$\tilde{\eta}^2 = \frac{79.33}{79.33 + 30}$$

$$\tilde{\eta}^2 = 0.72$$

Eta-squared =  $\tilde{\eta}^2 \times 100\%$

Eta-squared = 0.72 x 100% = 72%

The result of data analysis is based on inferential statistics which has been identified that after conducting the treatment for 4 meetings or 8 class-hours by using DRTA strategy can improve 72% on the reading comprehension. Therefore, the Ho3 hypothesis is rejected and Ha3 is accepted that there is significant effect between reading comprehension pre-test mean score of experimental group and reading comprehension post-test mean score of an experimental group

**Hypothesis 4**

The inferential statistics procedures begin with the statistical test on the following alternative hypothesis:

Ha4: There is a significant effect on students’ reading comprehension mean score of pretest and posttest mean score of the control group.

The result of the effect on implementing non- treatment of DRTA method on students reading comprehension for the control group of the composite comparing score for both pre-test and post-test is analyzed by using a Paired Sample T-test, and presented at the following Table 5.

Table. 5. The Analysis of Paired Sample T-test Between Pre-test and Post-test on students reading comprehension for the Control Group

Paired Samples T-Test

Subject	G.S	Mean	S.D	N	Df	T	Sig.(2-tailed)
Effect	Pre-test	58.87	11.77	32	31	-5.514	.000
	Post-test	74.62	9.23	32			

P<0.05.

From Table 5 above, the output of paired sample t-test shows that the t-test result is -5.514, its df is 31, by comparing number of significance. If probability>0.05, null hypothesis (H0) is accepted. If probability<0.05 alternative hypothesis (Ha) is accepted. Because the significance is 0.000 < 0.05, thus, Ha is accepted while H0 is rejected.

Then, the percentage of significant effect is found out between pre-test and post-test of the control group by finding out the effect size or eta-squared as follows:

$$\tilde{\eta}^2 = \frac{t^2}{t^2 + n - 1}$$

$$\tilde{\eta}^2 = \frac{(-5.514)^2}{(-5.514)^2 + 32 - 1}$$

$$\tilde{\eta}^2 = \frac{30.40}{30.40 + 31}$$

$$\tilde{\eta}^2 = 0.49$$

$$\text{Eta-squared} = \tilde{\eta}^2 \times 100\%$$

$$\text{Eta-squared} = 0.49 \times 100\% = 49\%$$

The result of data analysis is based on inferential statistics which has been identified that after conducting the treatment for 4 meetings or 8 class-hours by using non-DRA method can improve 49% on the reading comprehension. Therefore, the Ho4 hypothesis is rejected and Ha4 is accepted that there is a significant effect between reading comprehension pre-test and post-test mean score of the control group.

## 5 DISCUSSION

Reading as a receptive skill becomes very complex in the education field; therefore, students need to train in order to have a good reading skill. Harmer (1998), states that reading is useful for language acquisition. Provided more students more or less understand what they read, the more they read, the better they get at it. Since knowledge is rapidly accumulating and committed to print, the ability to comprehend reading is primarily crucial to improved, so that the students can get the message and information conveyed in the text. Reading is one of the language skills learned by the students. Reading activity almost covers the students' English book lesson. It is also important for academic success because reading is the basic to learn English. By reading, the readers can gain and update their information. Reading is the primary thing because it provides information for the reader or as an access for getting an explanation about anything. Reading gives much profit to the people. Besides, it is for gaining and updating information, readers can also give pleasure and entertain the readers. For example, when someone reads a newspaper, he/she will get the information and sometimes they enjoy it.

The goals of teaching reading should be aimed furthering students' comprehension skill. NCLRC (2003) states that the goals of teaching reading is to produce students who can use reading strategies to maximize their comprehension of text, identify relevant and non-relevant information, and tolerate less than word-by-word comprehension. When they are reading a text, they can get much crucial information from the text. Without comprehension, reading is just following the words on a page and the words have no meaning. So, they are not really reading because what they read is not useful for them. Therefore, that comprehension in reading is important because without comprehension, reading does not provide any information at all.

According to (Woolley. 2011), reading comprehension is the process of making meaning from text. The goal, therefore is to gain an overall understanding of what is

described in the text rather than to obtain meaning from isolated words or sentences. Reading comprehension is a crucial thing for the students to understand what they read. They do not only know the meaning of the words, but they also can make connection between sentences and the main point of the text. In order to support the students' reading comprehension, they should use appropriate strategies.

The findings of this study based on the research questions highlight the idea that DRTA method has significant effect which contributes 72% on students' reading comprehension. Rohaty et.al (2012,p.424) state the findings indicated that the increase in English language achievement can be attributed to the positive strengths of meaningful learning, whereby students learn through various modalities such as auditory, body kinesthetic and using affect. Then, Alan Crawford (2005, p. 44) states the rationale of DRTA method in Stauffer 1969) is popular methods for engaging students in reading narrative texts for understanding. It is designed to support students' reading comprehension by guiding them to key points in the text and providing opportunities discuss its meaning with their classmates. At last, it can be generalized that DRTA method can be implemented in teaching and learning process of reading comprehension for state Islamic senior high school (MAN) 1 Pekanbaru.

## 6 CONCLUSION

The findings indicate that there is a significant effect of using Directed Reading Thinking Activity ( DRTA) method on students' reading comprehension. Using DRTA method shows the significant effect on the students' reading comprehension. DRTA method contributes more effect (72%) which is in a good contribution. DRTA is a popular method for engaging students in reading narrative texts or informative texts for understanding. Using DRTA, the students read silently under direction of a teacher, the question prompts are specific and provide more supports for comprehension. It can be inferred that DRTA method is suitable for Senior high school students. It encourages them to make their own prediction. The teachers should be alert and creative to prepare the materials or other facilities before teaching. At last, it can be concluded that the research findings can be generalized and implemented to other senior high schools in Indonesia.

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