The Effects of DRA and DR-TA Methods on Students’ Reading Comprehension for State Islamic Senior High School

Abdullah Hasan*
State Islamic University of Sultan Syarif Kasim Riau, Indonesia
*Corresponding author: abd_hasanuin@yahoo.com

Abstract The aim of this study is to investigate the comparison between the use of Directed Reading Activity (DRA) and Directed Reading Thinking Activity (DR-TA) methods on students’ reading comprehension. The research design was a quasi-experimental study by comparing two strategies of two experimental groups and one control group pretest - posttest design. It involved 94 participants that consisted of two experimental groups and one control group of the students of State Islamic Senior High School (MAN) Pekanbaru of Riau province. Three research questions and nine hypotheses were posed in this study in order to find out the significant difference between DRA and DR-TA methods on students’ reading comprehension. Pretest and posttest were administered in this study and independent sample t-test and paired sample t-test were used to analyze the data. The research finding showed that there was no significant difference of post-test mean scores between the experimental class 1 using DRA method and the experimental class 2 using DR-TA method on students’ reading comprehension. DRA method contributed the effect of improvement on students’ reading comprehension 76% while DR-TA contributed 72%, and on the other hand the control class contributed 49%. At last, it can make an inference that both DRA and DR-TA methods can be applied in teaching reading comprehension especially at State Islamic Senior High School Pekanbaru of Riau province, and generally in Senior high school level in Indonesia.

Keywords: Directed Reading Activity (DRA) method, Directed Reading Thinking Activity (DR-TA) method and Reading Comprehension


1. Introduction

Nowadays, no one can argue that English has an important role in international communication. Kirkpatrick and Sussex [1] observe that English has been increasingly used as an international language along with the development of globalization. In addition, Torres (1998). [2] states that English is without a doubt the actual universal language, the official language in 70 countries. Therefore, the need to learn and use English is undeniable.

As an international language, English has gained its popularity all over the world, including Indonesia. [3] Ellis (1994, p.220) states that English serves as a means of communication between speakers of scientific, media and arts travel in tourism and literature. Furthermore, Allan Lander (2008) [4] claims that although in Indonesia, English does not widely use in society, it is not used as a medium of communication in official domains like government, the law courts, and the education system; and it is not accorded any special status in the country’s language legislation, it is still seen as priority, as the most important foreign language to be taught.

In Indonesia, English curriculum for junior and senior high school levels still focuses more on reading skill compared to three other skills; listening, speaking and writing. Reading is taken to be the central means for learning new information and gaining access to alternative explanation and interpretation. Celce (2001) [5] When it is observed on English textbooks, reading is more dominant part among four language skills. It can also be seen that the English test of the national examination and the entrance test for universities still provide more questions on reading comprehension.

[6] Hannel (2008, p.26) states that reading can enhance the lives and be a source of great pleasure. In reading activities, the students are not just obligated to be able to read what is written after reading material but also they should be able to capture the information or message in the reading material itself. In addition, [7] Neil (2003, p.68) conveys that the goal of reading is comprehension.

In order to make the students to be successful in today’s society, it is crucial that the students know how to read [8] (Gables, 2008). The ability to read is no longer an option but rather an expectation of all students throughout their career in order to be literate and successful in their community. However, being able to comprehend what is
being read is an essential skill that many students are struggling with. [9] (Ness, 2011).

In addition, reading literature in English as a Foreign Language is a challenging task for EFL learners. The activity is difficult because it is related to a learner's ability to read, understand and make interpretation of the text written in English. There will be interference and facilitation effects between L1 and L2. [10] Nation 2009, p.5 states that the native readers already know a lot of the language they are beginning to read (sounds, vocabulary, grammar, discourse) but L2 learners do not. Hence, Indonesian students as EFL learners need very controlled text. They have to consider many factors that affect the difficulty of language learning. It is already realized that to comprehend English reading text for EFL learners is more difficult than Indonesian text.

In teaching reading comprehension, the teacher has to have a goal to minimize reading difficulties and to maximize comprehension by providing culturally relevant information. What the students read must be relevant to their need and interest and they must be ready, willing and able to read it. Moats as cited in Westwood (2001) [11], states that reading is the fundamental skill upon which all formal education depends. Through reading, the students' knowledge will automatically be enriched which eventually can influence their language skills, such as listening, speaking and writing.

Based on preliminary study conducted at two State Islamic Senior High schools Pekanbaru, the teachers in teaching and learning process still focused on teacher centered instruction and inappropriate methods or strategies applied to the students. More students were not so interested in teaching and learning process. They got difficulties to determine topics, main ideas, supporting details, inferences, references and general structures of the text.

To find out the solution to the problems, Directed Reading Activity (DRA) and Directed Reading-Thinking Activity (DR-TA) methods were offered to implement in teaching reading comprehension. After conducting the treatments, both DRA and DR-TA methods were compared to determine which method would be appropriate to implement in teaching reading comprehension.

Allan et.al (2005, p.42) [12] state that the DRA is a reading comprehension/ critical thinking activity for the building knowledge part of a reading lesson either narrative or informational text. Then, Allan (2005, p.44) [13] in Stauffer (1969) DR-TA is a popular method for engaging students in reading narrative texts for understanding. It is similar to DRA that the students read silently under the direction of the teacher, but the question prompts are less specific and provide less support for comprehension than DRA.

2. Objectives and Research Questions

The main aim of this study is to explore the differences between the effects of using DRA and DR-TA methods towards the students' reading comprehension at State Islamic Senior High Schools Pekanbaru of Riau province, Indonesia. The specific objectives are as follows:

a. To determine the effects of using DRA method on students' reading comprehension.

b. To determine the effects of using DR-TA method on students' reading comprehension.

c. To explore the differences between the effects of using DRA and DR-TA methods on students’ reading comprehension.

Three research questions are formulated as follows:

1. Is there any significant effect of using DRA method on students’ reading comprehension?

2. Is there any significant effect of using DR-TA method on students’ reading comprehension?

3. Are there any significant differences between the effects of using DRA and DR-TA methods on the students' reading comprehension at State Islamic Senior High Schools Pekanbaru of Riau province, Indonesia?

3. Materials and Methods

The research design was a comparative study of quasi-experimental pre-test-post-test design, and three research questions with nine hypotheses were posed to explore the effects and differences between the use of DRA and DR-TA methods on the students’ reading comprehension. Cohen, L. Manion, L & Morrison, K [14] state that this research design is one of the most commonly used quasi-experimental design in educational research.

A 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 the difficulty of defining various variables involved in language learning (c); quasi-experimental design can reflect what happen in the real life settings without any disruptions in the educational set-up; therefore, this eliminates ‘artificially’ existing in true experiments and also shows that ecological validity of such designs is strong. (d) the results of quasi-experimental research, as Bryman (2001) [15] argues, is still ‘compelling’ and particularly prominent in evaluation research studies; and (e) the use of intact classes in quasi-experimental designs could reduce the threat of the effect that can often result when subjects are randomly selected and assigned to conditions for the cooperative lesson periods [16] Brumfit et.al. (1983).

The participants of the study consisted of 94 students from 315 of grade 11 of state Islamic senior high school Pekanbaru. They were divided into two experimental groups and one control group. The second set of subjects consisted of three English teachers who have the same qualifications and volunteered to teach the experimental groups using DRA and DR-TA and with non DRA and DR-TA methods on students’ reading comprehension. Cluster sampling was used that randomly selected groups, not individuals. All members of the 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& Airissian (2003) [17]. The data were obtained by using a pre-test and a post-test. The pre-test was used to determine the Basic English reading mastery before the treatment. The post-test was administered
to determine the students’ reading ability. This research was conducted for 8 meetings or 16 class-hours for each class within two months. DRA and DR-TA methods were used for the experimental groups, and non-DRA and DR-TA treatments for the control group. The implementation of each meeting was observed to see the implementation procedure of DRA- and DR-TA methods which provided by a lesson plan and a procedure. The procedure was divided into three steps; pre-activities consisted of opening the lesson, motivating strategy and apperception; whilst-activities covered the steps of both DRA and DR-TA methods; and then, ended by post-activities implemented reflex-ion, conclusion and closure.

Alan Crawford, et.al (2005) [12] states the procedure of DRA methods is as follows:

a). The teacher begins with one or two anticipation activities designed to motivate students and to activate or install needed background knowledge.

b). The teacher should chunk the text by dividing it into manageable pieces for the students to read silently. Then, the teacher should prepare one or two comprehension level questions for each chunk to be read by the students.

c). The teacher provides a culminating activity that allows students to review their understanding of the text and to apply them.

Then, Alan Crawford, et.al (2005) [12] states the procedure of DR-TA 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 and say what actually happened.

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 DRA and DR-TA methods lead 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 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 1 | 31 | 1792.00 | 57.80 | 12.30 |
| Pre Exp 2 | 31 | 1828.00 | 58.96 | 8.76  |
| Pre Control | 32 | 1884.00 | 58.87 | 11.77 |
| Post exp 1 | 31 | 2584.00 | 83.35 | 7.31  |
| Post exp 2 | 31 | 2488.00 | 80.25 | 6.27  |
| Post control | 32 | 2388.00 | 74.62 | 9.23  |
| Valid N  | 58.96 | 6.27  | 7.31  |

Based on Table 1, it can be determined that the number of participants at MAN 1 Pekanbaru in the experimental group 1 is 31 with pre-test standard deviation (12.30), post-test standard deviation (7.31), with pre-test mean score (57.80) and post-test mean score (83.35), the number of participants in the experimental group 2 is 31 with pre-test standard deviation (8.76), post-test standard deviation (6.27), 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).

9 (Nine) hypotheses were analyzed by using inferential statistics as follows:

Hypothesis 1

H01: There is no a significant difference on students’ reading comprehension pretest mean score between an experimental group 1 and an experimental group 2.

The result of pre-test mean scores between EG1 and EG2 of State Islamic Senior High School is presented at the following table:

| Table 2. The Analysis of Independent Sample T-test of Pre-test reading comprehension score between an Experimental group 1 and an experimental Group 2 |
|-----------------|----------|---------|---------|-----------|-----------|
| Subject   | R.G     | Mean   | S.D    | N | Df | T   | Sig(2-tailed) |
| Pre-test   | EG1    | 55.78  | 12.30  | 31 | 60 | -0.428 | .670         |
|            | EG2    | 58.96  | 8.76   | 31 |     |       | p>0.05       |

Based on Independent T-test analysis for pre-test reading comprehension score of the experimental group 1 and experimental group 2 on Table 2 above, it shows that there is no significant difference at pre-test reading comprehension between an experimental group 1 and an experimental group 2. T-test result is -0.428, its df is 60, standard deviation of the experimental group 1 is 12.30 and the experimental group 2 is 8.76. So, in the conclusion p = 0.670, the 2-tailed value is bigger than 0.05 (p>0.05). The result shows that the mean scores do not differ much between both groups. It can be determined that the subjects in both groups are equivalent before being given the treatment.
Based on 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 score between an experimental group 1 and an experimental group 2.”

Pallant [18] states that if the significant value is greater than 0.05, this indicates that there is no violation of the assumption of equality of variance and that equal variances are assumed for the variable concerned. An independent sample t-test is conducted to determine any significant difference between pretest mastery mean scores of the experimental and control groups.

**Hypothesis 2**

Ho2: There is no a significant difference on students’ reading comprehension pretest mean score between an experimental group 1 and a control group.

Table 3. The Analysis of Independent Sample T-test of Pre-test reading comprehension score between an Experimental group 1 and a control Group

<table>
<thead>
<tr>
<th>Subject</th>
<th>R.G Mean</th>
<th>S.D N</th>
<th>Df</th>
<th>T</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>EG.1 57.80</td>
<td>12.30</td>
<td>31</td>
<td>.035</td>
<td>.726</td>
</tr>
<tr>
<td></td>
<td>CG.2 58.87</td>
<td>11.77</td>
<td>32</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p>0.05.

Based on Independent sample t-test analysis for pretest mastery of an experimental group 1 and a control group on Table 3 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 1 is 57.80 and SD =12.30 and the mean for the control group = 58.87 and SD= 11.77.

The analysis of Table 3 of the second 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 score between an experimental group 1 and a control group.

**Hypothesis 3**

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

Ho3: There is no a significant difference on students’ reading comprehension pretest mean score between an experimental group 2 and a control group at MAN 1 Pekanbaru.

Table 4. The Analysis of Independent Sample T-test of Pre-test reading comprehension score between an Experimental group 2 and a control group

<table>
<thead>
<tr>
<th>Subject</th>
<th>R.G Mean</th>
<th>S.D N</th>
<th>Df</th>
<th>T</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>EG.2 58.96</td>
<td>8.76</td>
<td>31</td>
<td>0.035</td>
<td>.972</td>
</tr>
<tr>
<td></td>
<td>CG.2 58.87</td>
<td>11.77</td>
<td>32</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p>0.05.

Based on Independent sample t-test analysis for pretest mastery of an experimental group 2 and a control group on Table 4 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 2 is 58.96 and SD =8.76 and the mean for the control group = 58.87 and SD= 11.77.

The analysis of Table 4, of the third 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 score between an experimental group 2 and a control group.

**Hypothesis 4**

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

Ho4: There is no a significant difference on students’ reading comprehension post-test mean score between an experimental group 1 and an experimental group 2.

Table 5. The analysis of post-test reading comprehension between an experimental group 1 and an experimental group 2 analyzed by using an Independent Sample T-test and presented at the following

<table>
<thead>
<tr>
<th>Subject</th>
<th>R.G Mean</th>
<th>S.D N</th>
<th>Df</th>
<th>T</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-test</td>
<td>EG.1 83.35</td>
<td>7.31</td>
<td>60</td>
<td>.726</td>
<td>.079</td>
</tr>
<tr>
<td></td>
<td>EG.2 80.25</td>
<td>6.27</td>
<td>31</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p>0.05.

Based on Independent T-test analysis for post-test reading comprehension score between an experimental group 1 and an experimental group 2 on Table 5 above, it shows that there is no significant difference between post-test reading comprehension between an experimental group 1 and an experimental group 2. T-test result is -1.79, its df is 60, standard deviation of an experimental group 1 is 7.31 and an experimental group 2 is 6.27. So, in the conclusion p = 0.079, the 2-tailed value is bigger than 0.05 (p>0.05). The result shows that the mean scores do not differ much between both groups. It can be determined that the subjects in both groups are equivalent after being given the treatment.

Based on the analysis of Table 5, of the forth hypothesis, Ha4 is rejected and Ho4 is accepted. So, it can be concluded that “There is no significant difference on students’ reading comprehension post-test mean score between an experiment group 1 and an experimental group 2.

**Hypothesis 5**

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

Ha5: There is a significant difference on students’ reading comprehension post-test mean score between an experimental group 1 and a control group.

Table 6. The Analysis of Independent Sample T-test of Post-test reading comprehension score between an Experimental group 1 and a control Group is presented on Table 6

<table>
<thead>
<tr>
<th>Subject</th>
<th>R.G Mean</th>
<th>S.D N</th>
<th>Df</th>
<th>T</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-test</td>
<td>EG.1 83.35</td>
<td>7.31</td>
<td>61</td>
<td>4.152</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>CG.2 74.62</td>
<td>9.23</td>
<td>32</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

p>0.05.

Based on Independent T-test analysis for post-test reading comprehension score of an experimental group 1 and a control group on Table 6 above, it shows that there
is a significant difference at post-test reading comprehension between an experimental group 1 and a control group. T-test result is 4.152, its df is 61, standard deviation of an experimental group 1 is 7.31 and a control group is 9.23. So, in the conclusion p = 0.000, 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 6, of the fifth hypothesis Ha5 is accepted and Ho5 is rejected. So, it can be concluded that “There is a significant difference on students’ reading comprehension post-test mean score between an experimental group 1 and a control group.

Hypothesis 6

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

Ha6: There is a significant effect on students’ reading comprehension post-test mean score between an experimental group 2 and a control group.

Table 7. The Analysis of Independent Sample T-test of Post-test reading comprehension score between an Experimental group 2 and a control Group is presented on Table 7

<table>
<thead>
<tr>
<th>Subject</th>
<th>R.G</th>
<th>Mean</th>
<th>S.D</th>
<th>N</th>
<th>Df</th>
<th>T</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-test</td>
<td>EG 2</td>
<td>80.25</td>
<td>6.27</td>
<td>31</td>
<td>61</td>
<td>2.823</td>
<td>.006</td>
</tr>
<tr>
<td></td>
<td>CG</td>
<td>74.62</td>
<td>9.23</td>
<td>31</td>
<td>32</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P<0.05.

Based on Independent T-test analysis for post-test reading comprehension score of an experimental group 1 and a control group on Table 7 above, it shows that there is a significant difference at post-test reading comprehension between an experimental group 2 and a control group. T-test result is 2.823, its df is 61, standard deviation of an experimental group 2 is 6.27 and a control group is 9.23. 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 7, of the fifth hypothesis Ha6 is accepted and Ho6 is rejected. So, it can be concluded that “There is a significant difference on students’ reading comprehension post-test mean score between an experimental group 2 and a control group.

Hypothesis 7

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

Ha7: There is a significant effect on students’ reading comprehension between pre-test and post-test mean score in the experimental group 1

Table 8. The Analysis of Independent Sample T-test of Post-test reading comprehension score between an Experimental group 1 and a control Group is presented on Table 8

<table>
<thead>
<tr>
<th>Subject</th>
<th>G.S</th>
<th>Mean</th>
<th>S.D</th>
<th>N</th>
<th>Df</th>
<th>T</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect</td>
<td>Pre-test</td>
<td>58.96</td>
<td>8.76</td>
<td>31</td>
<td>30</td>
<td>-9.79</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>83.35</td>
<td>7.31</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P<0.05.

From Table 8 above, the output of paired sample t-test shows that the t-test result is -9.79, 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:

\[ \eta^2 = \frac{t^2}{t^2 + n - 1} \]

\[ \eta^2 = \frac{(-9.79)^2}{(-9.79)^2 + 31} \]

\[ \eta^2 = 0.76 \]

Eta-squared = \( \eta^2 \times 100\% \)

Eta-squared = 0.76 \times 100\% = 76\%

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 DRA method can improve 76% on the reading comprehension. Therefore, the Ho7 hypothesis is rejected and Ha7 is accepted that there is a significant effect between reading comprehension pre-test mean score of experimental group 2 and reading comprehension post-test mean score of the experimental group 1.

Hypothesis 8

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

Ha8: There is a significant effect on students’ reading comprehension between pre-test and post-test mean score in the experimental group 2.

Table 9. The Analysis of Paired or Dependent Sample T-test between pre-test and post-test reading comprehension mean score in the Experimental group 2 is presented on Table 9

<table>
<thead>
<tr>
<th>Subject</th>
<th>G.S</th>
<th>Mean</th>
<th>S.D</th>
<th>N</th>
<th>Df</th>
<th>T</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect</td>
<td>Pre-test</td>
<td>57.80</td>
<td>12.30</td>
<td>31</td>
<td>30</td>
<td>-8.907</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>80.25</td>
<td>6.27</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P<0.05.

From Table 9 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 group 2 by finding out the effect size or eta-squared as follows:

\[ \eta^2 = \frac{t^2}{t^2 + n - 1} \]

\[ \eta^2 = \frac{(-8.907)^2}{(-8.907)^2 + 31} \]
Paired Samples T-Test comparing number of significance. If probability > 0.05, is rejected.

Between pre-test and post-test of the control group by finding out the effect size or eta-squared as follows:

\[ \eta^2 = \frac{r^2}{r^2 + n - 1} \]

\[ \eta^2 = \frac{(-5.514)^2}{(-5.514)^2 + 32 - 1} \]

\[ \eta^2 = \frac{30.40}{30.40 + 31} \]

\[ \eta^2 = 0.49 \]

Eta-squared = \( \eta^2 \times 100\% \)

\[ Eta-squared = 0.49 \times 100\% = 49\% \]

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 DRA strategy can improve 72% on the reading comprehension. Therefore, the Ho9 hypothesis is rejected and Ha9 is accepted that there is significant effect between reading comprehension pre-test mean score of experimental group 2 and reading comprehension post-test mean score of an experimental group 2

Hypothesis 9

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

Ha9: There is a significant improvement 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 DRA and DRTA methods 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 10.

**Table 10. The Analysis of Paired Sample T-test Between Pre-test and Post-test on students reading comprehension for the Control Group**

<table>
<thead>
<tr>
<th>Subject</th>
<th>G.S</th>
<th>Mean</th>
<th>S.D</th>
<th>N</th>
<th>Df</th>
<th>T</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect</td>
<td>Pre-test</td>
<td>58.87</td>
<td>11.77</td>
<td>32</td>
<td>31</td>
<td>-5.514</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>74.62</td>
<td>9.23</td>
<td>32</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P<0.05.

From Table 10 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 Ho 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:

\[ \eta^2 = \frac{79.33}{79.33 + 30} \]

\[ \eta^2 = 0.72 \]

Eta-squared = \( \eta^2 \times 100\% \)

\[ Eta-squared = 0.72 \times 100\% = 72\% \]

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 non-DRA and DRTA methods can improve 49% on the reading comprehension. Therefore, the Ho9 hypothesis is rejected and Ha9 is accepted that there is a significant improvement between reading comprehension pre-test and post-test mean score of the control group.

5. Discussion

Reading is one of the important skills that should be mastered by foreign language learners. Richards and Smiths (2010, p.483) [19], “Reading is the process by which the meaning of a written text is understood” Regarding the previous idea, Westwood (2008) [20] said that the proficiency in reading skill consisted of two main competencies, they are identifying words and linguistics comprehension. Thus, comprehension is the main goal of reading, where the message is conveyed to the reader from a written language.

Tankersly (2003) [21] revealed that ‘reading comprehension’ requires making meaning from words because good readers have a purpose for reading to use their experiences and background knowledge to make sense of the text” Abdullah Hasan [22] states that teaching and learning process in today’s classroom needs improving and keeps on changing from time to time based on the new situations and conditions. The educational needs keep on changing from Elementary school up to tertiary levels. Educators in general need to explore and search suitable approaches, methods, techniques and strategies to overcome the changing of the educational needs in their teaching and learning processes.

The findings of this study based on the research questions highlight the idea that both DRA and DR-TA methods have significant effect on students’ reading comprehension. DRA method contributes the significant effect 76% while DR-TA method 72%, so there are not significant differences between both of them on students’ reading comprehension. Alan Crawford (2005:42) [12] states the rationale of both methods 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. Both DRA and DR-TA (Crawford in Stauffer 1969) [12] are popular methods for engaging students in reading narrative texts for understanding. DRA is similar to DRA in that students read silently under direction of the teacher, but the question prompts are less specific and provide less support for comprehension than DRA. DR-TA is suitable for students who have had good success with DRA, because it encourages them to make their own predictions. At last, it can be generalized that both DRA and DR-TA methods can be implemented in teaching and learning process of reading comprehension for state Islamic senior high school level of Riau province, Indonesia.

6. Conclusion

The findings indicate that there are no significant differences between DRA and DRTA methods on students’ reading comprehension. Both of them show the significant effect on the students’ reading comprehension. DRA method contributes a little bit more effect (76%) compared to DR-TA method (72%). DR-TA is a popular
method for engaging students in reading narrative texts or informative texts for understanding. It is similar to DRA that the students read silently under direction of a teacher, but the question prompts are less specific and provide less support for comprehension than DRA. It can be inferred that DRA method is implemented firstly before DR-TA which is suitable for students who have good success with DRA, because 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.

References