Research article

Effectiveness of the Directed Reading Thinking Activity Strategy for Learning Reading Comprehension at Grade IV in Yogyakarta

S Sunarti*, Diah Fatma Mernawati

Faculty of Teacher Training and Education, Universitas PGRI Yogyakarta, Indonesia

Abstract.

This research aimed to identify the effectiveness of using the directed reading thinking activity (DRTA) strategy for reading comprehension learning in grade IV. This research was conducted at SD Islam Al-Azhar 31 in Yogyakarta from September to October of the 2020 academic year. This was quasi-experimental research with a non-equivalent control group design. Class IV IF and Class IV IK served as the experimental and control groups, respectively, with each consisting of 26 students who were randomly recruited. Data were collected using tests and observations. The instrument used was a multiple-choice test consisting of 20 test items that showed a validity index ranging from 0.40 – 0.64 with a reliability index of 0.86 on the pretest, and 0.43 – 0.62 with a reliability index of 0.87 on the post-test. A significant difference was found (index = 3.118, p = 0.003). It is therefore concluded that the DRTA strategy is effective in teaching reading comprehension at grade IV.

Keywords: directed reading thinking activity (DRTA) strategy, learning to read understanding

Corresponding Author: S Sunarti; email: bunartisadja@mail.com

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1. Introduction

One of the language learning competencies that students should acquire concerns reading skills. Reading skill plays significant roles in this modern era, where fast changes in various life aspects are happening. To have a good comprehension of information included in various writings, reading activity is absolutely acquired, and it is also completed with the skill to comprehend its content [1]. With no skill to comprehend reading content, numerous information cannot be fast and accurately absorbed, and hence, people will be left behind [2].

Reading is the window to the world. Through reading, we are able to get various important and beneficial information. In short, in this modern age, everyone is required to be skilled in reading since reading is the key to science, success, and advance.

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Anyone who wants to progress, he should have good reading skills. This skill, therefore, needs proper attention.

Developing reading skills among the young generation, that is formally imposed on schools through *Bahasa Indonesia learning* needs to call for appropriate attention. As a learning manager, a teacher is required to have a better understanding of reading theory. He or she should teach reading based on various interesting, stimulating various teaching-learning methods. Briefly, numerous efforts of teachers to improve their reading skills should be developed.

Reading comprehension is one of the reading skills developed in schools. In general, reading comprehension refers to a reading activity aimed to understand the text in a comprehensive way. The skill developed in reading comprehension concerns the skill to comprehensively understand or grasp the explicit implied and highlighted content of the written text that is read.

One of the significant components in reading comprehension to stimulate and improve students' activity in reviewing every text that he or she is learning is related to the reading comprehension strategy. Several reading comprehension strategies can be proposed, namely *top-down*, *bottom-up*, *interactive*, *Know Want Learn* (KWL), *Directed Reading Thinking Activity (DRTA), and Guided Reading (GR)* [3]. The problem that *Bahasa Indonesia* teachers encounter in the schools refers to the uncertainty of a more effective strategy in improving students' excitement and learning outcomes in *Bahasa Indonesia* learning subjects.

This study was conducted to examine the effectiveness of one of those strategies mentioned, i.e. *Directed Reading Thinking Activity (DRTA).* It is expected that the effectiveness of reading comprehension learning proved based on the result of the study is able to serve as a reference for teachers in solving their problems in learning.

DRTA strategy focuses on students' involvement with texts since the students predict and prove it when they do reading [4]. The DRTA is applied to train students to have concentration skills in seriously understanding the text content. DRTA strategy is purposed to achieve a general objective of enabling students involved in their thinking process and experience during reading and in reconstructing the writer's ideas [5].

According to [6], DRTA refers to instruction in reading learning by making predictions on what the writer thinks, making confirmation or revision on the prediction, and collaborating opinions. This DRTA strategy focuses on the students' involvement with reading text since they make predictions and evidence when they do reading.

According to, DRTA is a strategy adopted to develop student's reading skills comprehensively, critical reading, and to extensively grow student's acquired experience based

on the reading text type and content [7]. To start with, students are asked to make a prediction on what happened in the text through pictorial media that may encourage students to think about the messages the text conveys. Afterward, the predictions that are individually made, will be different from another since they think based on their own thinking; and in this case, a teacher has to accept the predictions that the students state.

Proposes that the DRTA strategy is implemented in the learning stages as the following. 1) Teacher introduces a text, by informing several points about the text content. 2) Students make predictions on the text to read [5]. When they have not been able to do it yet, the teacher should stimulate them to make predictions. Numerous predictions should be produced and hence supporting and opposing groups will be created. 3) Students do a silent reading on the text to check on the predictions made. In this stage, a teacher should be able to guide students to do reading activities in recognizing the text's meaning, to observe students' reading behaviors, and assist students in identifying the difficulty to understand the meaning of the words by providing illustrations of the words, and not directly mentioning its meaning. 4) Testing the prediction; in this stage, students are required to check the predictions made. When such predictions are incorrect, the students should be able to show the inconsistencies and make a new description of the text content which is true. 5) Fundamental skill training. In this stage, students may activate their thinking skills. Several activities that students carry out involve conducting story testing, story re-telling, drawing, diagram making, or text conceptual map developing, and character trip map making (trip describing character existence in some events underwent).

Explains that the steps of DRTA strategy are as the following [8].

The first step is to make a prediction based on the title clue. Every student is provided with the opportunity to make his or her own prediction. The teacher writes the title of the story on the blackboard; and then he or she asks a student to read it. Provide each student with a chance to make a prediction

The second step is to make a prediction from a guiding figure. The teacher asks students to carefully observe a series of pictures. Afterward, the teacher requests students to observe one of the pictures and asks students what actually happened based on the pictures.

The third step is reading material. The teacher asks students to read the parts of the picture they have chosen or predicted. Then students are asked to associate the parts of the story with the title of the story. Then the teacher asks students to read the reading material that has been provided

The fourth step refers to the accuracy of predictions and predictions. When the students read the first part of the story, the teacher leads a discussion by asking questions. Thereafter, the teacher asks the student who holds that his or her predictions are correct to perform reading aloud the part of the text that supports their predictions to the class. The fifth step is the teacher repeating procedures 1 to 4 until all parts of the lesson aforementioned are completed.

In general, DRTA is intended to make students have critical and reflective reading skills. Suggests that: in particular, DRTA aims to develop students' abilities in (1) explaining the purpose of reading; (2) quoting, understanding, and assimilating information; (3) discussing reading materials based on reading purpose; (4) pending the decision; and (5) making decisions based on information obtained from reading activity[5].

DRTA strategy is designed to achieve a general objective, i.e. to make students able to involve their thinking process during reading since the reader must involve their experiences. DRTA strategy involves students with intensive reading. Before doing a reading activity, students make predictions based on the title and pictures. Afterward, their predictions and text are matched. After reading the whole text, the students take tests related to the reading. This DRTA strategy may help students to find difficulties in identifying the main ideas and in reading comprehension learning.

From several studies on DRTA strategy that other researchers conducted, the following results are obtained. A study from Syarif Al Azhar State Islamic University Jakarta entitled "*The Influence of the DRTA Strategy Implementation on Fairy Tale Reading Comprehension Skill at Fifth Graders of Putra Jaya Depok Elementary School in the 2013/2014 Academic Year*" proves that DRTA strategy application affects the fairy tale reading comprehension skill at even semester fifth graders of Putra Jaya Elementary School, Depok [9].

A study by [10] from Semarang State University entitled "*The Effectiveness of DRTA Strategy Implementation in Bahasa Indonesia Learning in Class V SD N Getaskerep 01 Tegal*". The result shows that DRTA strategy is effective in improving the interest and reading comprehension skills of class V students.

A study by [11] from State University of Yogyakarta entitled "*The Influence of Using DRTA Strategy on Reading Comprehension Skills in the Class V Students at MIS Sidorejo in 2013/2014 Academic Year*". DRTA provides a positive influence on the reading comprehension skill of the fifth grader at MIS Sidorejo in 2013/2014 academic year.

A study by [12] from Sebelas Maret University Surakarta entitled "*The Effect of DRTALearning Strategies toward Students' Reading Comprehension Ability Seen from*

Their Reading Interest". The result of his research states that reading comprehension skill taught through DRTA strategy is better and increases student's interest.

2. Method

The first serves as the experimental group, i.e. the class treated with reading learning using the DRTA strategy, and the second, as the control group, i.e. the class treated with reading learning based on the conventional learning model [13-14]. The design of this study applied Nonequivalent Control Group Design. In this design, the experimental and control groups were selected randomly. The design is as the following:

$$O_1 \qquad\qquad X \qquad\qquad O_2$$

$$O_3 \qquad\qquad\qquad\qquad\qquad O_4$$
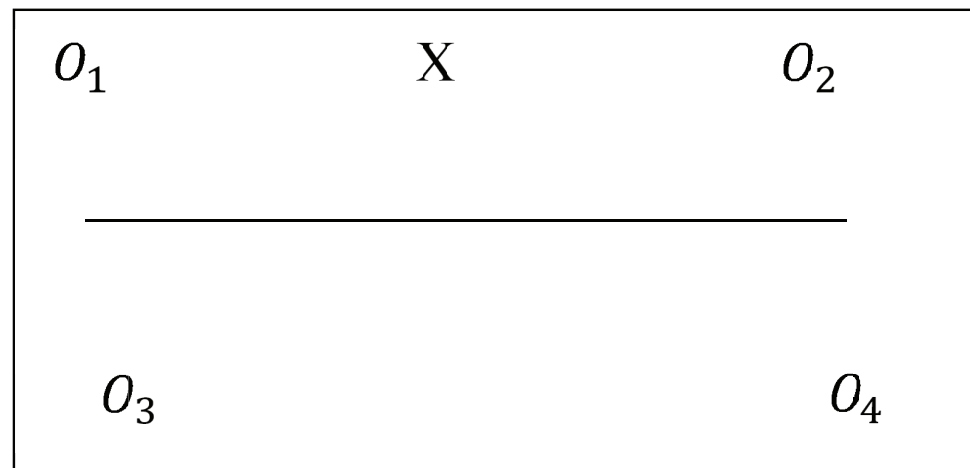
Figure 1: Design Riset.

Note:

X : Treatment

O_1 : Pre-test on Initial Competence

O_2: Post-test after Treatment

O_3: Pre-test on Initial Competence

O_4 : Post-test with no treatment

The research was conducted at SD Islam Al Azhar 31 Yogyakarta. It was carried out in September - October of the 2020 academic year. Subjects involved class IV that were consisted of two study groups, i.e. Class IV IF and Class IV IK. In this study, Class IV IF and Class IV IK served as the experimental and control groups, respectively, with each consisting of 26 students that were randomly recruited.

Data were collected by using test and observation. Instruments adopted was multiple choice test consisting of 20 test items.

Test item trial were administered among those excluded of the samples, i.e. 27 students of SDN 2 Pakem. Its result indicated that all the items used in this study showed a validity index ranging from 0.40 – 0.64, with a reliability index of 0.86 on the pretest, and 0.43 – 0.62 with a reliability index of 0.87 on the posttest.

3. Result

3.1. Data Description

The post-test result of the control class showed the highest and the lowest scores of 100 and 65, respectively. Its mean was 82.88, median was 85.00 and mode was 85. The post-test result of the experimental class in the class where DRTA strategy treatment was given, its highest and lowest scores were 100 and 70, respectively. Its mean was 89.23, median was 90.00 and mode was 95. The spread of the data is shown in the following table:

TABLE 1: Post-test statistical description.

Statistics		
	Control Post Test	Experimental Post Test
Mean	82.88	89.23
Std. Error of Mean	1.573	1.292
Median	85.00	90.00
Mode	85	95
Std. Deviation	8.022	6.587
Variance	64.346	43.385
Range	35	30
Minimum	65	70
Maximum	100	100

3.2. Hypothesis Testing

Hypothesis testing was conducted by using independent sample t-test aiming to identify the significance of the difference in reading comprehension skill average score between the experimental class using DRTA strategy and that using conventional learning from the post-test results.

Following is the normality and homogeneity test calculating results on the experimental and control class post-tests:

TABLE 2: Result of normality tests.

	Class	Kolmogorov-Smirnov			Shapiro-Wilk		
Tests of Normality							
Result		Statistic	df	Sig.	Statistic	df	Sig
	Experimental Post Test	.194	26	.013	.890	26	.009
	Control Post Test	.142	26	.187	.964	26	.476

From the result of normality test table on the control and experimental classes, it is seen that the values of *Sig. (2-tailed)* control and experimental class post-tests are 0.187 and 0.013, respectively. It indicates that the experimental and control post-test data are stated as normal.

TABLE 3: Result of homogeneity test.

		Levene Statistic	df1	df2	Sig
Test of Homogeneity of Variance					
Result	Based on Mean	1.288	1	50	.262
	Based on Median	1.044	1	50	.31
	Based on Median and with adjusted df	1.044	1	48.039	.312
	Based on trimmed mean	1.420	1	50	.23

The homogeneity test result table on the experimental and control class post-tests shows that the significance level on the *Based on Mean* is 0.262. Hence, with the post-test homogeneity test result aforementioned, it is concluded that the variance the control and experimental classes have are homogeneous due to 0.262> 0.05The table below exhibits the result of the difference in reading learning comprehension test average between the experimental class using the DRTA strategy and the control class using conventional learning.

TABLE 4: Statistical result of experimental and control means.

	Class	N	Mean	Std. Deviation	Std. Error Mea
Group Statistics					
Learning Outcomes	Experimental Post Test	26	89.23	6.587	1.292
	Control Post-test	26	82.88	8.022	1.573

Based on the average test calculation on the experimental and control groups, it is revealed that if > 0.05 then H_0 is accepted. In the table above, it is indicated that t =

TABLE 5: Independent test result on t-test samples.

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Interval Difference	Confidence of the Difference
									Lower	Upper
Learning Outcomes	Equal variances assumed	1.288	0.262	3.118	50	0.003	6.346	2.036	2.258	10.435
	Equal variances not assumed			3.118	48.176	0.003	6.346	2.036	2.254	10.439

3.11 in sig. (*2-tailed*) is 0.003; hence, H_1 is accepted, and H_0 is rejected because 0.003 < 0.05; therefore, it is stated that DRTA Strategy is effective in reading comprehension learning at the grade IV of elementary school.

4. Conclusion

Based on the analysis, it can be concluded that the DRTA strategy is effective in reading comprehension learning for the elementary school fourth graders. The post-test learning outcomes average scores of the control and experimental classes are 82.88 and 89.23, respectively. It shows a very significant difference with t = 3.11 at p = 0.00.

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