

A Directed Reading-Thinking Activity (Dr-Ta) Towards Students 'Critical Reading

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Abstract: This current study aimed to find out whether DR-TA (Directed Reading- Thinking Activity) had a significant effect on the critical reading skills of the English department students of FPBS IKIP Mataram or not. The population of this research was 238 students and the samples were taken by using cluster random sampling technique the sample was 80 students which was consisted of 41 students in the control group and 39 students in the experimental. This research is quantitative with a quasi-experimental design: the non-equivalent control group design. To obtain the data needed, the instrument was administered namely tests which was consisted of pre-test and post-test. Pre-test was applied to obtaining the primary data meanwhile the post-test was applied after the treatment accomplished. The data on the reading test was analyzed by using descriptive statistic and inferential statistics. The result of data analysis showed that the experimental group mean score on pre-test was 62.5 and posttest was 73.07, meanwhile the result of control group means score on pre-test was 57.92 and post-test 64.25. There was an improvement of the students in each group from pre-test to post test. And the result hypothesis or inferential analysis proved that t-test score was higher than the result t-table ($3.843 > 1.990$) with degree of freedom (df) was 75 in significant level 95% or $\alpha = 0.05$. It can be concluded that DR-TA Strategy has significant effect on critical reading skills of the English department students of FPBS IKIP Mataram. The effect was significant because DR-TA Strategy lead the students to have prediction before reading, create background knowledge, analyzing the fact to support the prediction, confirming the prediction and evaluating the text and context in order to have comprehensive comprehension. The results of this research hopefully could be an alternative strategy in teaching critical thinking in reading and could be reference for further researchers.

Key Words: *DR-TA Strategy, Critical Reading Skills*

Abstrak: Penelitian ini bertujuan untuk; Pertama, mengetahui apakah ada pengaruh dari DR-TA strategy (Directed Reading- Thinking Activity) terhadap kemampuan membaca kritis siswa FPBS IKIP Mataram. populasi dalam penelitian ini adalah 238 siswa dan sampel penelitian diambil dengan menggunakan tehnik acak (Random) jumlah sampel pada kelompok control adalah 41 siswa dan 39 siswa di kelompok eksperimen. Penelitian ini adalah penelitian Kuantitatif dengan desain Kuasi-Experimental non-equivalent control group design. Untuk memperoleh data penelitian, peneliti menggunakan tiga jenis instrument yaitu: test (pre-tes dan post-test), kuesioner dan dokumentasi. Hasil test di analisa menggunakan statistic inferensial, hasil kuesioner dianalisa menggunakan skala likert dan data dikumentasi menggunakan kualitatif analisis seperti yang di rekomendasikan oleh Cresswell 2001. Hasil dari analisa data menunjukkan bahwa nilai rata rata kelompok experimental di pretest adalah 62.5 dan nilai postestnya adalah 73.07, sementara kelompok control di pretest yaitu 57.92 dan posttest 64.24. Hasil t-test menunjukkan bahwa nilai t-tes lebih besar dari nilai t-table ($3.843 > 1.990$) dengan df 75 pada taraf signifikan 95% atau $\alpha = 0.05$. hasil ini menunjukkan bahwa strategi DR-TA memiliki pengaruh yang signifikan terhadap kemampuan membaca kritis siswa di fakultas bahasa inggris dan seni FPBS IKIP Mataram. Strategi DR-TA efektif karena trategi ini dapat membantu siswa untuk memperediksi apa yang akan dibaca, memiliki latarbelakang pengetahuan, menganalisa fakta dan opini,

mengonfirmasi hasil prediksi sebelumnya dan memberikan evaluasi tentang text dan konteks untuk mencapai pemahaman yang maksimal. Dengan demikian diharapkan strategi ini bisa menjadi strategi alternatif untuk meningkatkan kemampuan membaca kritis siswa dan dapat menjadi acuan penelitian untuk penelitian terkait.

INTRODUCTION

Critical reading skills are urgent to be acquired in this modern society since some written information might contain provocative arguments. When it happens, the cultural, religious, educational values that have been taught will remain nothing. Due to, all educational levels particularly university should promote such skills through choosing an appropriate strategy as one of alternatives.

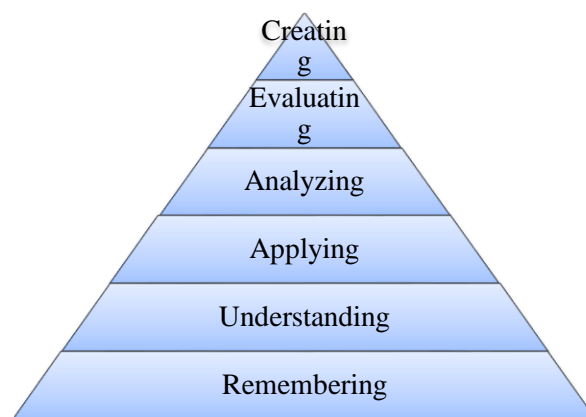
One teaching strategy introduced by Russell Stauffer in 1969 (in Ruddell, 2005:92) is called Directed Reading-Thinking Activity (DR-TA) emerges to help students acquires the critical reading skills. Ruddell said that this current strategy is adaptable to many different text styles as well as to other media (2005:92-95). She continued that this strategy concern on how the students making prediction or pre judgments before coming to their final decision.

A research conducted by Rukminingsih (2014) tried to incorporate the DR-TA into Extensive Reading class. She found out that in the implementation of DR-TA strategy could be followed by other reading strategies like skimming, scanning, reading aloud, and retelling to develop comprehension, enjoy, interest, and enthusiasm. It was also noted that the DR-TA strategy was interesting and enjoyable strategy. In addition, another research was conducted by Erliana (2011) where she tried to improve her students' reading comprehension using DR-TA. The results of her study reveal that DR-TA not only could improve the students' comprehension but also increasing their motivation in learning

From that finding, it can be inferred that the DR-TA strategy is a powerful strategy to be used in teaching both intensive and extensive reading. However, the reading, which is meant in this current research, is another part of intensive reading called critical reading. As

theories of reading cite that there two types of reading namely extensive and intensive reading (Renandya & Jacobs, 2002:295). At last, the different from this research is on their dependent variable. The following figure explains the position of this current research on Erliana's own.

Figure 1.. The cognitive levels taken from Holden (2009: 9)



Holden (2009:7) confirmed that the lower levels of cognitive domain are remembering and understanding and the higher levels are applying, analyzing, evaluating, and creating. A research conducted by Stahl (2008) found that DR-TA strategy had a significance effect on the novice readers' reading comprehension and science content acquisition. This finding shows us that the DR-TA strategy is a superior and beneficial strategy.

In further, the critical reading as parts of comprehension aims at producing readers who are able to make judgments about what they read (Khabiri&Pakzad, 2012:78).

Reading, as noted in Cahyono and Widiati (2006), is classified into two types: initial and comprehension. They continued that

the former is for those who have not been able to read to learn reading. However, the latter goes to people who have been able to read in their first language and in EFL. Thus, this present study discusses EFL reading since the participants will be taken from the tertiary level.

It is to achieve the goal of critical reading, the readers should start from the simplest to the highest cognitive system (Buku Kurikulum Pendidikan Tinggi, 2014). In further, there are three well-known taxonomies used to explain such cognitive system namely Bloom (1956)., Anderson and Krathwol (2002), and Marzano (2009). Each of these have their own strengths and characteristics.

There are some models of the reading process namely bottom-up, top-down, and alternative models. The top-down model which is also known as ppsycholinguistic model view of reading proposes that reading is not a linear process. It is a process in which a reader samples texts, makes and tests hypotheses and predictions about what he is reading based on his background knowledge of text contents as well as his knowledge about text language. From what is seen and what is expected, the reader forms a perceptual image, and then searches memory for matching syntactic, semantic, and phonological cues.

Ruddell (2005) stated that DR-TA guides students through text by having the teacher ask students to make and support predictions before reading and then examine their predictions, conclusions, and logic as reading progresses(2005:92). In addition, Vacca, et.al. (1999:238) stated that DR-TA involves prediction, verification, judgment, and ultimately extension of thought.

The assumption that DR-TA strategy can lead the students to become critical readers is because of its stages. The detail of the stages can be seen in the following table:

Table 1.The stages of DR-TA

No	Stages	Description
1	Initial speculation and	- The students have only a title and their

No	Stages	Description
	conjecture	prior knowledge from which to speculate; - The students are examining numerous possible contexts, but predictions tend to rely on prior knowledge and various interpretations of the title.
2	Preliminary confirmation and redirection	- The first predictions are confirmed or discarded
3	Data collection and analysis	- Facts, ideas, thematic concerns, and questions are interwoven to make sense of text
4	Focused speculation and refined analysis	- Information has been revealed for students to discard ideas that do not work and begin focusing on where the text is going on - Predictions become much more focused and definite and much less tentative
5	Final speculation and summarizing	- Tentative conclusions are drawn - The conclusion may come from individual or be collectively generated
6	Decision making	- Everyone in the classroom has arrived at conclusions about the content or final outcome of the text

From the above table, the teacher guides the readers in reading activity and stimulates their thinking through the judicious use of questions. Vacca, et.al (1999) reminded the importance of time. They added, posing open-ended questions with pause should not more than two, three, five, or even ten seconds for a response in order that the original questions cannot be sliced.

RESEACH METHOD

This research is experimental research with quasi-experimental non-equivalent control group design pre-test posttest design. The design is represented on the table below:

Table 2. Research Design

T ₁	X	T ₂

T ₃	C	T ₄

Notes:

- T₁ & T₃ : Pretest
- T₂ & T₄ : Post-test
- X : treatment of experimental group
- C : treatment of control group
- Dash line : nonequivalent control group design

The population of this research was 238 students and the samples were taken by using cluster random sampling technique, the sample was 80 students which was consisted of 41 students in the control group and 39 students in the experimental, in collecting the research data, the researcher used critical reading test which was consisted of 32 multiple choices picked up from 49 questions after validity test because before the test was delivered, the instrument was tasted its readability, validity and reliability in order to achieve valid data. The readability test can be observed on the table below:

Table 2. The score of Read ability test

Read Ability Index		Text Statistic	
Flesch kincaid reading ease	79.8	No. of sentence	473
Flesch Kincaid grade level	4.1	No. of words	3727
Gunning fog score	6.9	No. of complex words	392
SMOG index	5.5	Percent of complex words	10.52%
Coleman liau index	8.3	Average words/ sentence	7.88
Automated readability index	1.8	Average syllables/ words	1.41

Based on the result the readability test, it was noted that the instrument readability score is 79.8 and the text scales it should easy category to be read (6.9) in fairly easy level around 12th grade level (6.9). The SMOG index level fifth grade (5.5) and the Colleman Liau is 8th grade (8.3).

The text statistic index shows that the detail description of the sentences and words used on the critical reading instrument, mean while the complexity of the words applied on the text is almost 11% with 392 complex words. So it is mostly simple sentence were used for in the critical reading skill instruments

After the research data was obtained from the test, the data was analyzed by using descriptive statistic and in testing the hypothesis; the t-test was applied on the promise that the data is homogeny and normally distributed.

THE FINDING

The data analysis calculated that the control group pretest score was 57.92, mode was 46.87, median was 56.26 with minimum and maximum score was 43.75 & 81.25 and the posttest mean score was 64.25, mode, 53.13 and median 62.5 with standard deviation was 10.96 and 10.80, Meanwhile the experimental group means score in pretest was 62.5, median was 62.5, mode 56.25. And the posttest means score was 73.07 modes was 65.62 and median was 71.87 with standard deviation 10.75 and 9.63. The pretest data shows that the students still have difficulties in reading critically and after treatment was accomplished, the score of each group is increased, it might be underlined that the treatment influenced the students' critical reading skill in both group.

Nevertheless, to understand the effectiveness of DR-TA Strategy towards students' critical reading the further analysis is needed (Hypothesis Testing).

Before the hypothesis testing is applied the normality and homogeneity test were completed as a condition of inferential analysis. The result of normality test is drawn on the table below:

Table 4. Normality Test

1). Control Group						
Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Control	.120	41	.143	.932	41	.017
a. Lilliefors Significance Correction						
2). Experimental Group						
Tests of Normality						
	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Experimental	.143	39	.043	.943	39	.047
a. Lilliefors Significance Correction						

The result describes that the statistic value of Kolmogrov-Smirnov of control group is 0.12 and Sig or P-value = 0.14 > α 0.05. It underlines that the control group data is normal. Meanwhile the Kolmonogrov-Smirnov statistic of experimental group shows that the statistic value is 0.143 with sig. or P-value is 0.43 > α 0.05, there for the experimental group data is also normal.

Table 3. Test of Homogeneity of Variances

Expemen			
Levene Statistic	df1	df2	Sig.
1.236	9	27	.315

Table 2 *Test of Homogeneity* Proves that the achievement of Levene Statistic is 1.236; df1 = 9, df2 =27 and the P-value = 0.315. The P-value or Sig id higher than α value (0.315 > 0.05) therefore it can be underlined that the population or sample is homogeny.

The data analysis result proved that the research population is normal and homogeny, afterward the researcher may continue the analysis into inferential analysis or hypothesis testing in order to prove the difference between control group and experimental group and to know the effect of DR-TA Strategy towards students' Critical reading skill. The hypothesis used was t-test: Two-Sample Assuming Equal Variances @Excel 2010.

Table 5. Hypothesis Testing

t-Test: Two-Sample Assuming Equal Variances		
	<i>Experimental Group</i>	<i>Control Group</i>
Mean	73.07692308	64.25304878
Variance	92.83274291	116.7230373
Observations	39	41
Pooled Variance	105.084176	
Hypothesized Mean Difference	0	
df	78	
t Stat	3.848308584	
P(T<=t) one-tail	0.000120937	
t Critical one-tail	1.664624645	
P(T<=t) two-tail	0.000241875	
t Critical two-tail	1.990847036	

The analysis counted that the result of t-stat is 3.384, and this value is compared to the t-critical two-tail, if the t-test is higher than t-table then the alternative hypothesis is accepted, meanwhile if t-table is higher than t-test then the alternative hypothesis is rejected. The data proved that in the significant level 5% α = 0.05 the t-obtain is higher than t-table or t

Critical two-tail ($3.384 > 1.990$) in degree of freedom (df); $n-2 = 78$. It can be concluded that the alternative hypothesis (H_a) which said DR-TA (Directed Reading- Thinking Activity) strategy has a significant effect on the students' critical reading skills of the English department students of FPBS IKIP Mataram is accepted and Null hypothesis (H_o) DR-TA (Directed Reading- Thinking Activity) strategy has not a significant effect on the critical reading skills of the English department students of FPBS IKIP Mataram is rejected.

DISCUSSION

The result of data analysis proved that the mean score of pretest and posttest were different and the posttest score was higher than pretest score, it means that the application of Directed Reading-Thinking Activity is effective; therefore the strategy can be applied on teaching learning process especially in teaching critical reading skill.

The advantage of applying this strategy is because the students were able to predict what the topic will discuss about, questioning their self about the text, confirming or prove the prediction and also modify the prediction that make them able to create background knowledge or prior knowledge about the text, then analyzing the text and context and finally evaluate the text. Ruddell said that this current strategy is adaptable to many different text styles as well as to other media (2005:92-95). She continued that this strategy concern on how the students making prediction or pre judgments before coming to their final decision. It means that this strategy effective towards students critical reading skill.

The result of effectiveness of DR-TA Strategy also confirmed with the statistical analysis of t-test score was 3.384 the significant level 5% ($\alpha = 0.05$) this value is higher than the t critical two-tail value 1.990. those data proved the effectiveness of applying DR-TA Strategy in teaching critical reading skill.

CONCLUSION

The conclusion that can be drawn the result of data analysis is that DR-TA Strategy is

proved effective towards students critical reading, because the statistical analysis confirmed that the result t-test (t_{Stat}) is higher than t-table ($t_{\text{Critical Two-Tail}}$) in significant level 5% ($\alpha = 0.05$) with degree of freedom $n-2$ is 78 ($39+41-2$) and the result of hypothesis analysis is $t_{\text{test}} 3.848 > t_{\text{table}} 1.991$. This value confirms that the DR-TA strategy has a significant effect towards the critical reading skills of the English department students of FPBS IKIP Mataram.

Reading is not only limited to the ability of knowing the text meaning, but it also need a critical thinking to analyze text and context, explore explicit and implicit meaning of the text and evaluating strength and weakness, thus the readers would be able to have comprehensive comprehension. Therefore, it is expect that the lectures of Language University have some creative strategies to stimulate the students' critical thinking in reading that causing the improvement of students' learning activities and enlarged knowledge though reading. A *Directed Reading-Thinking Activity (DR-TA) Strategy* could be an optional strategy for lectures to be applied in teaching learning process, especially in teaching critical reading.

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