

# THE EFFECT OF DOUBLE ENTRY JOURNAL (DEJ) STRATEGY AND SELF-EFFICACY ON STUDENTS' READING COMPREHENSION AT GRADE X IPS STUDENTS AT SMA NEGERI 2 PADANG

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## Abstract

Reading teaching strategy - Double Entry Journal (DEJ) and students' self efficacy are the factors that influence students' reading comprehension served in the background of this research. In accordance with the background, this research was aimed at testing the effect of DEJ and student's self efficacy on students' reading comprehension. This study was experimental research with quasi and 2×2 factorial design. It was conducted at tenth grade of Social science students at SMA Negeri 2 Padang as the population of this research. The sample was chosen by using cluster random sampling. The reading comprehension test and questionnaire of self efficacy were used to collect the data of the research. The results of data analysis showed that; (1) DEJ strategy produced better reading comprehension than small group discussion (SGD) strategy; (2) DEJ produced better reading comprehension of students with high self efficacy; (3) DEJ did not produce better reading comprehension of students with low self efficacy; (4) there was no interaction between strategies and students' self efficacy on students' reading comprehension. Based on the finding, it is concluded that DEJ is an effective strategy for students' reading comprehension compared to SGD.

**Keywords:** Double Entry Journal (DEJ) strategy, reading comprehension

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## Introduction

Reading probably becomes the most important skill for students to be successful in their studies. The goals of reading are to get information and to improve knowledge from the text. According to Nunan (2003) states that reading comprehension is a product of reading process. There are three important key points in reading: the process of reading focused on the strategies used by the reader, the process of reading focused on the texts, and the product of reading that is comprehension. Moreover, Alyousef (2005) says that reading comprehension is a combination of identification and interpretation skills. Therefore, students are encouraged to comprehend what they read to get reading comprehension and to improve their knowledge.

To get reading comprehension, students should comprehend many aspects which relate to reading skill, main idea of the text, the word meaning and so on. Furthermore, in the process of reading comprehension, students should involve their experiences, background knowledge, and reading strategy to comprehend the text. Students should actively relate those factors while they are reading in order to get ideas, to utilize the information to their life, and to increase their knowledge from their reading.

However, there are still many students who think that reading is very complicated. They find difficulties to understand the text. These difficulties of reading are also faced by eleventh grade students of SMA Negeri 2 Padang. They have problems to answer the comprehension questions about the texts given. Mostly, they are able to answer the questions asking about specific information such as date, place, and so on. But, they have difficulty in answering the questions which need analysis, like reasons, opinions, and processes in which the students have to understand what the texts are really about.

In order to increase students' reading comprehension, there are many ways to be done, one of them is improving teaching strategy. There is an alternative strategy called Double Entry Journal (DEJ) strategy which is assumed to give valuable advantages toward students' reading comprehension. DEJ strategy gains students' reading comprehension through writing activity as the reflection of comprehending a text by giving response to what the students read (Rodrigez, 2012). DEJ allows the students to explore their thoughts without being restricted. They may respond anything about what they have known or have not known yet

related to the text. Interestingly, DEJ does not only focus on the grammatical correctness of the comments; but it also focuses more about the comment. Furthermore, for commenting the quotation from the text, DEJ provides two columns: the left side is for re-writing the quotations or statements taken from the text and the right column is for responding the quotation stated. The teacher may select which quotations or statements that the students need to respond or the teacher may allow them to choose the quotations or statements. Each of the students has their own journal where they write their responses.

By having the individual response, the students may have an understanding of the reading. However, if they are grouped, they will be more ready and confident. Although not all of the students may have good understanding about their reading, even some of them may have misinterpretation; through discussion, the students may have deep understanding about the text. At the end of the discussion, the teacher gives a brief explanation and clarifies if there is misunderstanding found during the discussion. From the explanation of implementing DEJ strategy above, the strategy may be potential to improve students reading comprehension.

In addition, there are internal factors influencing students learning process; they are motivation, anxiety, interest, intelligent, personality, self-efficacy and some others. Based on the classroom observation in SMA Negeri 2 Padang, the researcher found that students incline to give up easily when they find difficulties in comprehending reading text. They find the difficulties as obstacles rather than as challenges that should motivate them to overcome the difficulties. When finding problems in comprehending a text, they tend to stop and avoid them. Then, they rely on their friends who have good reading comprehension. They do not believe in themselves in comprehending the text individually. Their lack of self-reliance of their capability indicates that the students have low self-efficacy which also affects their confidence and motivation in reading comprehension.

Self-efficacy is one of psychological factors that are closely related to self belief. It has important implication regarding motivation. Self-efficacy defines as referring to believe in one capability to learn or perform tasks at designated levels (Bandura, 1997). It influences students' confidence and motivation to accomplish their task. Students with high level of self-efficacy are more likely to challenge themselves and be more motivated to succeed while facing potential failure. However, those having low level of self-efficacy confront that working toward a particular goal is very difficult. They feel anxious while finding obstacle in their task then being unmotivated to accomplish their learning goal.

DEJ requires the students to bring out their ideas and explore their thoughts to give their responses to the text. In the concept of self-efficacy, the central component of teaching and learning process is the students' belief of their capability. Having high level of self-efficacy prepares the students to be strategic, self-reflective and confident. So, it can be said that self-efficacy fulfills the requirement of DEJ strategy which prosecutes the students to believe and be confident to explicate their ideas without feeling hesitated about their responses to a reading text. In relation to the description above, the researcher is interested to relate students' self-efficacy with DEJ strategy to find out the effectiveness on students' reading comprehension.

## **Method**

This research was an experimental research with quasi design. The population of tis research was the tenth grade of Social science students at SMA Negeri 2 Padang which consisted of 3 classes (105 students). The sample was chosen by using cluster random sampling. As a result, X IPS 1 was the experimental class and X IPS 3 was the control class.

Post-test only was designed for both experimental and control class. There were two instruments used in this research; reading comprehension test and questionnaire of students' reading self-efficacy. Reading comprehension test was used to measure students' reading comprehension and it was given after the treatment. The reading comprehension test items were in multiple choice forms. There were 44 questions for 90 minutes and each question has five possible options (A, B, C, D, or E). Those questions were based on two kinds of text, narrative and report. While, the self-efficacy questionnaire was used to know the level of students' reading self-efficacy which had been assigned at the beginning of the research before the treatment. there were 27 questionnaires which were made based on the theory suggested by Bandura (1997) and Pajares (1997). These criteria included all the criteria to measure students' self efficacy. They are mastery, vicarious experience, verbal persuasions, and psychological states.

The data was collected through posttest of reading comprehension. Then, it was analyzed by using Liliefors test for normality testing, variance test for homogeneity testing, and t-test for hypothesis testing.

## **Result and discussion**

This research was conducted in eight meeting for both classes – experimental class and control class. After treatment, both classes were given posttest. The result of the reading test was analyzed. Based on the

analysis result, both data of the students' reading comprehension were normally distributed and homogeneous. Then, it was continued to hypothesis testing.

**1. DEJ produces better reading comprehension than SGD for the students.**

$H_0$  : DEJ strategy does not give better effect toward students' reading comprehension than in SGD.

$H_a$  : DEJ strategy gives better effect toward students' reading comprehension than in SGD.

Data	DEJ	SGD
		N : 35 Mean : 76.03
$T_{observed}$	1.808	
$T_{table}$	1.668	
Conclusion	$T_{observed} > T_{table}$ $H_a$ accepted	

From the table above, it can be seen that the result of the t-test analysis indicates that the value of  $T_{observed}$  is 1.808 which is higher than the value of  $T_{table}$  1.668 with the level of significance 0.05. It means that the null hypothesis ( $H_0$ ) is rejected and the alternative hypothesis ( $H_a$ ) is accepted. In other words, the students who are taught by using DEJ strategy have better reading skill than those who are taught by using SGD strategy in reading.

Based on the statistical analysis of hypothesis testing it is clear that the students' mean scores in experimental class (76.02) higher than students' mean score in control class (73.11). In other words, DEJ has better result on students' reading comprehension of narrative and report texts or it can be said that is more effective than SGD in teaching reading comprehension of narrative and report text.

As the matter of fact, there are several points why DEJ gives benefits to students' reading comprehension. First, DEJ gives students opportunity to express their thoughts and become actively involved with the text. It forces the students to react to the text by giving comments to the quotations that they select. The students are not restricted to respond the text throughout they can interact to the text. Second, by having response in DEJ column, the students can reflect their reading comprehension through the interaction between the students and the text. Moreover, when they are grouped they have more chances to deepen their comprehension through discussing their individual responses. Then, DEJ also lets the students to be free in expressing their thoughts, feelings, and their prior knowledge about the text they read. If they have critical thinking, they will write some perceptions about the quotation meanwhile when they do not understand the quotation about or it is new information for them, they question the quotation on the commenting column.

It is in line with the previous research findings conducted by Amin (2012) who had conducted a classroom action research using DEJ strategy in teaching reading comprehension at Second grade students of SMA Negeri 1 Pasui in Makasar. The finding shows that DEJ significantly improved student's reading comprehension after applying it in two cycles, classifying the students as good categories. In addition, Khairani, Petrus, and Sijinjak (2016) also conducted an experimental research using Double Entry Journal to improve students reading comprehension and descriptive writing. The result indicates that DEJ are mostly effective for improving comprehension achievement but are not effective for writing.

**2. DEJ produces better reading comprehension to high self efficacy students**

$H_0$  : DEJ strategy does not give significantly higher results on students' reading comprehension for high self efficacy students as compared to SGD

$H_a$  : DEJ strategy gives significantly higher results on students' reading comprehension for high self efficacy students as compared to SGD

Data	DEJ	SGD
		N : 9 Mean : 79.44
$T_{observed}$	3.156	
$T_{table}$	1.746	
Conclusion	$T_{observed} > T_{table}$ $H_a$ accepted	

Related to the table above, it can be stated that the result of t-test analysis indicates that the value of  $T_{observed}$  (3.156) is higher than the value of  $T_{table}$  (1.746). It means that the null hypothesis ( $H_0$ ) is rejected and

the alternative hypothesis ( $H_a$ ) is accepted. Therefore, it is pointed that high self efficacy students who are taught by using DEJ have better reading ability than those who are taught by SGD in reading.

Statistically, the finding shows that the students' reading comprehension with high reading self-efficacy taught by using DEJ is better than students' reading comprehension taught by SGD. It can be seen from the mean score of students' reading comprehension with high reading self-efficacy taught by using DEJ is higher than the mean score of students with high self-efficacy were taught by using SGD.

It occurs since DEJ requires the students to express their thought and feeling as ideas to respond the quotations from the text. In expressing their ideas, the students must be confident with the ideas that they put forward without concerning the truth of their ideas. The students with high self efficacy were not burdened while writing their respond to the right column on DEJ form. They actively explore their thoughts and responds to the quotations because students who have high self efficacy are motivated to explore more about what they should react to the quotations.

As supported by Moskal and Blachowicz (2006) that a motivated reader develops a sense of self efficacy and high expectation for success. It means that self efficacy is in line with expectation; the students who are high self efficacy will also have high expectation. They are challenged to attempt achieving their goals. The high self efficacy students struggle to respond to their quotation; they may involve the prior knowledge and experiences, even they question the quotation when it is new information for them.

In conclusion, DEJ is more effective for students with high self efficacy since the implementation of DEJ forces students to actively interact to the reading without considering the correctness of the responses. The students with high self efficacy meet the DEJ demand as they have more struggles to reveal their ideas. Thus, it is clear that DEJ produces better result for students with high self efficacy in reading comprehension.

**3. DEJ does not produces better reading comprehension to low self efficacy students**

$H_0$  : DEJ strategy does not give significantly higher results on students' reading comprehension for low self efficacy students as compared to SGD

$H_a$  : DEJ strategy gives significantly higher results on students' reading comprehension for low self efficacy students as compared to SGD.

Data	DEJ Strategy	SGD strategy
	N : 9 Mean : 73.44	N : 9 Mean : 75.44
$T_{observed}$	- 0.838	
$T_{table}$	1.746	
Conclusion	$T_{observed} < T_{table}$ $H_a$ rejected	

Based on the table above, students' reading ability of low self efficacy who are taught in experimental class is lower than those in control class. It is statistically proven by the result of  $T_{observed}$  (- 0.838) is lower than the value of  $T_{table}$  (1.746). It means that the alternative hypothesis ( $H_a$ ) is rejected and the null hypothesis ( $H_0$ ) is accepted. Thus, low self efficacy students who are taught by using DEJ have better reading ability than those who are taught by SGD in reading.

The finding shows that students with low self efficacy taught by DEJ do not have better result than taught by SGD. From the mean scores of both classes indicate that mean score of experimental class is lower than control class. In other word, SGD is less appropriate to students with low self efficacy than SGD. SGD demands students to select the quotation from the text then elaborate the responses toward the quotation they have selected. However, students with low self efficacy are not confident enough to respond the quotation critically. Despite of having more arguments to state, they prefer not to reveal all their ideas. In addition, most of students with low self efficacy also have low motivation to gain their knowledge.

According to Zulkosky (2009) states that self-efficacy levels can increase or hamper motivation. When facing difficulties, students who have a high sense of efficacy for learning should expand greater effort and persist longer than those who are doubt with their capabilities. But it does not give best result for students with low self-efficacy because they do not believe with themselves that they have capability to solve the task.

In conclusion, the students who have low self efficacy tend to underestimate themselves to achieve the goal in learning. Perhaps, they can explore more than they think but due to the low self efficacy, they have less effort. Thus, students with low self efficacy do not produce better result in reading comprehension than the students with high self efficacy in applying DEJ strategy.

**4. There is an interaction between both teaching strategies (DEJ and SGD) and students' self efficacy on reading comprehension**

$H_0$  : There is no interaction between those strategies and students' self efficacy to the students' reading comprehension.

$H_a$  : There is an interaction between those strategies and students' self efficacy to the students' reading comprehension.

Tests of Between-Subjects Effects					
Dependent Variable: SCORE					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	233.333 <sup>a</sup>	3	77.778	3.502	.026
Intercept	204304.000	1	204304.000	9.199E3	.000
CLASS	44.444	1	44.444	2.001	.167
SE	28.444	1	28.444	1.281	.266
CLASS * SE	160.444	1	160.444	<b>7.225</b>	<b>.011</b>
Error	710.667	32	22.208		
Total	205248.000	36			
Corrected Total	944.000	35			

a. R Squared = .247 (Adjusted R Squared = .177)

F table (0.05) = 0.247

The table above shows that  $F_{observed}$  (7.225) is higher than  $F_{table}$  (0.247), so the alternative hypothesis ( $H_a$ ) is accepted and the null hypothesis ( $H_0$ ) is rejected. It can be said that there is an interaction between both strategies of teaching reading and students' self efficacy toward students' ability in reading.

The average score of students high and low self efficacy who are taught by using DEJ and SGD can be seen in the following table:

**Table 1. Students Average Scores of Reading Ability between High and Low Self Efficacy of Experimental and Control Class**

Teaching Strategy \ Self Efficacy	DEJ	SGD
High	79.44	73.00
Low	73.44	75.44

Source: Data analysis

The table above shows the mean score of high self efficacy students' reading who were taught by DEJ is 79.44 which is higher than those who were taught by SGD (73). It means that high self efficacy students from experimental class have better reading score than the high self efficacy students from control class. Then, the mean score of low self efficacy students' reading in experimental class was 73.44 which was lower than the mean score of the students in the control class (75.44). In other words, SGD is not appropriate for low self efficacy students.

Furthermore, the interaction among students' reading skill, teaching strategy, and students' self efficacy learning can be described in the following graph:

### The Interaction Graph of DEJ and SGD toward Students' Reading Comprehension

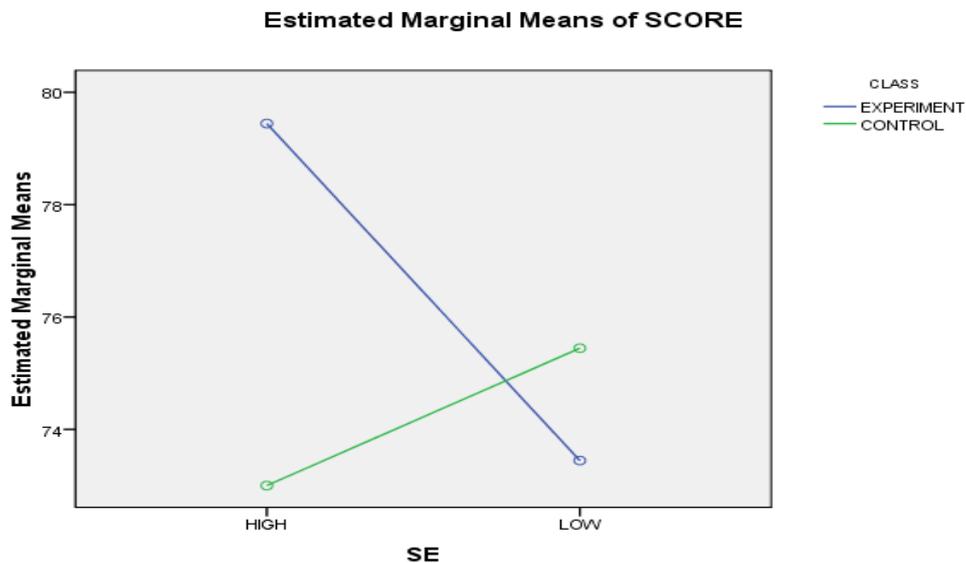


Figure above shows that there are two lines which indicate the two methods which cut one another. In this case, self efficacy as moderate variable influenced students reading ability for both strategies. That's why the lines cut one another. It means that there was an interaction between methods and students' self efficacy toward students' ability in reading.

Statistically, the finding shows that the average score of the students' reading comprehension test in experimental class which is taught by using DEJ is higher than those in control class who are taught by using SGD for tenth grade of social science students at SMAN 2 Padang. However, based on the analysis of the fourth hypothesis testing, it shows that there is an interaction between both strategies and self-efficacy toward students' reading comprehension. Clearly, the alternative hypothesis is accepted.

Chart shows that there are two lines indicating that there are two strategies with each of the strategy consists of high and low self efficacy. These two lines are intersecting which shows an interaction between the strategies and self efficacy. It exhibits DEJ gives high score in reading comprehension for students with high self-efficacy and SGD gives better score for reading comprehension for students with low self-efficacy. These both strategies help the students to achieve their goal in reading comprehension. Therefore, there are two lines meet each other that are the strategies with high and low self-efficacy. The interaction can be seen in the 4<sup>th</sup> hypothesis.

According to Gay and Airasian (2000), a statistical interaction occurs when the effect of one independence variable on the dependent variable changes depending on the level of another independent variable. Therefore, an interaction occurs when the effect of DEJ toward students' reading comprehension changes depending on the level of students' reading self efficacy.

From the data analysis, DEJ is more effective than SGD to enhance students' reading comprehension from the mean score of students' reading comprehension. Meanwhile, self efficacy helps the students to develop their reading comprehension. The interaction between those strategies and self-efficacy affects students' reading comprehension. It occurs because DEJ encourage students to actively engage with the text. The students with high self efficacy are challenged when they are asked to the task and they are motivated to achieve the goal. Meanwhile, the low self efficacy students find difficulty to fulfill the task given. It is caused by the low self efficacy which makes them assume that they are not able to explore their thought.

Based on the explanation above, DEJ and SGD produce better result on students' reading comprehension with high and low self efficacy. However, DEJ generally produces better result on students' reading comprehension than does SGD.

### Conclusions

Based on the results of the data analysis and research findings that were conducted to tenth grade students of SMAN 2 Padang, it can be concluded that DEJ produces better reading comprehension for the students. Through the activity of DEJ, the students are encouraged to be active to their reading. To be able to respond their reading, students must be confident to their ability which is known as self efficacy. The high self efficacy they have, the more confidence they respond to their reading. This strategy reflects how far the

students understand about their reading. Moreover, students with high self efficacy incline confronting themselves to think critically and actively link their respond to what they known. Thus, students with high self efficacy are more appropriate taught by using DEJ. However, DEJ is not appropriate to students with low self efficacy in which they doubt with their capability of accomplishing their reading. In short, There is an interaction between both strategies ( Double Entry Journal and Small Group Discussion) and students' self efficacy on students' reading comprehension. It means that DEJ, SGD, and self efficacy give contributions toward students' reading comprehension

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