

## USING INQUIRY-BASED TEACHING (5E) IN TEACHING VOCABULARY VIEWED FROM STUDENTS' LOCUS OF CONTROL

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### Abstract

*The objectives of the research are to find out: (1) whether inquiry-based teaching is more effective than grammar-translation method to teach vocabulary; (2) whether the students who have high locus of control have better vocabulary than those who have low locus of control; and (3) whether there is an interaction between teaching methods and locus of control in teaching vocabulary. The factorial design method 2x2 was employed in this research. The population of the research was the students of fourth semester of STKIP Muhammadiyah Pringsewu Lampung in the academic year of 2014/2015. Based on the test of the hypotheses, it can be concluded that inquiry-based teaching is not significant effective method to teach vocabulary. The conclusion is the measurement effectiveness of the method is not determined by the levels of the students' locus of control*

**Keywords:** Vocabulary, Inquiry Based Teaching, Locus of Control

### 1. INTRODUCTION

The more vocabulary students know, the better they are able to communicate. A large vocabulary opens students up to a wider range of vocabulary materials. A rich vocabulary also improves students' ability to communicate through speaking, listening, and writing. To achieve the goal of learning vocabulary, the writer tries to improve students vocabulary by using inquiry-based teaching. She also considers their locus of control (high and low) to know whether inquiry-based teaching is suitable for students who have

high or those who have low locus of control. The function of students' locus of control is to judge whether the learning process is successful or not. Locus of control is a generalized expectancy about the extent to which reinforcements are under internal or external control (O'Brien, 1986: 52). Locus of control refers to the way people see themselves in control of the events that happen to them, and the power they have to change them. The concept categorizes individuals into one of two groups: those who believe that good things happen to

them because they work hard (internal locus of control) and those who believe that what happens to them is the product of luck or destiny (external locus of control) (Baron, 1993: 8).

In other words, a student's locus of control can be used to predict their successes and failures. The students with high locus of control orientation accept responsibility for controlling over their environment. They will be encouraged if the teacher gives a chance to them to involve actively in teaching learning process. Their control, of course, influences their achievement, especially in achieving vocabulary mastery. They tend to be more active in teaching and learning process. If students have high locus of control, of course, it will be easier for them to understand the vocabulary materials. On the other hand, students who have low locus of control believe that they have little control or power to affect personal outcomes. Students with low locus of control maintain a passive attitude toward their grades, assigning responsibility for their performance to others. They become the followers in joining the vocabulary class and passive in the class. Students with low locus of control do not see effort as

related to achievement. They think that nothing they do will lead to success (Gage & Berliner, 1984: 399). Based on the description above, the writer is interested in knowing the reality empirically, not only theoretically.

## **2. RESEARCH METHODS**

Tuckman (1978: 135) defines that factorial design allows a researcher to study the interaction of an independent variable with one or more other variables, sometimes called as moderator variables. It can be said that factorial design is one of the efficient ways to study several relationships with one set of data. In line with this design, it is possible to assess the effect of each independent variable separately as well as their conjoint or simultaneous effect or interaction. The researcher took only two classes as sample. While, in determining the experimental group and control group, the researcher selected the class randomly, because it was impossible to change the classroom arrangement and for number of students the researcher took purposive sampling technique, 26 students each class. The result is Class A as experimental class and Class B as control class. This research uses three

variables; two independent variables and one dependent variable, as follows: a)

Independent Variable 1 ( $X_1$ )

Independent variables 1 ( $X_1$ ) in this research are Inquiry Based Teaching and Grammar Translation Method,

Independent Variable 2 ( $X_2$ ) independent variable 2 ( $X_2$ ) in this research is

students' locus control, and dependent variable (Y) Students' achievement in vocabulary mastery. The data in this

research were the results of vocabulary test and the questionnaire of students' locus control in learning Vocabulary.

After the data were collected, the data analysis was done to determine the effectiveness of the treatment and to test the research hypothesis. Before testing

the research hypothesis, the sample analyzed first to know whether they were in normal distribution or not, and the data

analyzed whether they were homogenous or not. After that, ANOVA and Tuckey test were utilized to answer hypotheses.

### 3. FINDINGS AND DISCUSSION

#### 1. Normality

Before analyzing the data for testing the hypotheses, the researcher analyzes the normality and homogeneity of the

data. The following is the summary of normality of the sample distribution.

**Table 1: The summary of the normality of the sample distribution**

No	Data	Sample	$L_o$	$L_t$	Alpha	Distribution Of Sample
1	$A_1$	26	0.1186	0.173	0.05	NORMAL
2	$A_2$	26	0.1186	0.173	0.05	NORMAL
3	$B_1$	26	0.1186	0.173	0.05	NORMAL
4	$B_2$	26	0.1186	0.173	0.05	NORMAL
5	$A_1B_1$	13	0.1736	0.242	0.05	NORMAL
6	$A_1B_2$	13	0.1736	0.242	0.05	NORMAL
7	$A_2B_1$	13	0.1736	0.22	0.05	NORMAL
8	$A_2B_2$	13	0.1736	0.22	0.05	NORMAL

#### 2. Homogeneity

After analyzing the normality of the sample distribution, the researcher analyzes the homogeneity of the data. The following is the analysis of the data

homogeneity.

**Table 2: Data homogeneity**

NO	$X_1$	$X_1^2$	$X_2$	$X_2^2$	$X_3$	$X_3^2$	$X_4$	$X_4^2$
1	72	76	68	74	5184	5776	4624	5476
2	80	80	68	70	6400	6400	4624	4900
3	82	70	68	72	6724	4900	4624	5184
4	76	64	64	70	5776	4096	4096	4900
5	82	68	70	72	6724	4624	4900	5184
6	82	64	70	76	6724	4096	4900	5776
7	76	70	68	72	5776	4900	4624	5184
8	76	64	64	68	5776	4096	4096	4624
9	80	66	72	74	6400	4356	5184	5476
10	70	66	64	68	4900	4356	4096	4624
11	80	64	64	78	6400	4096	4096	6084
12	76	64	68	72	5776	4096	4624	5184
13	74	66	64	64	5476	4356	4096	4096
	1006	882	872	930	78036	60148	58584	66692

Because  $\chi_o^2$  (7.751) is lower than,  $\chi_t^2$  .95(3) (7.81) it can be concluded that the data are homogeneous.

### 3. ANOVA test (Multifactor Analysis of Variance)

Testing hypothesis can be done after the data are normal and homogeneous through normality and homogeneity test.

**Table 3: The summary of a 2 X 2 multifactor analysis of variance**

Source of variance	SS	df	MS	F <sub>o</sub>	F <sub>t</sub> (.05)
Between Columns (Methods)	150,99	1	150,99	5,045	4,00
Between Rows (Locus of Control)	108,38	1	108,38	7,029	
Columns by rows (interaction)	258,94	1	258,94	2,942	
Between Groups	0,43	3	0,143333		
Within Groups	39611,76	52	<b>761,765</b>		
Total	40130,50	51			

### 4. Tuckey Test

After using multifactor analysis of variance, the researcher analyzes the data using Tuckey test. The following is analysis of the data using Tuckey test.

**Table 4: The summary of Tuckey test**

Cells	q <sub>o</sub>	Status	
		qt (0.05)	
A <sub>1</sub> - A <sub>2</sub>	0.7347	2.86	Significant
B <sub>1</sub> - B <sub>2</sub>	1.9029	2.86	Significant
A <sub>1</sub> B <sub>1</sub> - A <sub>2</sub> B <sub>1</sub>	0.7544	2.92	Significant
A <sub>1</sub> B <sub>2</sub> - A <sub>2</sub> B <sub>2</sub>	0.6817	2.92	Significant

Based on the summary of a 2 x 2 Multifactor Analysis of Variance, it can be concluded that:

1. F<sub>0</sub> between columns (5.045) is higher than F<sub>t</sub> (4.00) at the level of significance ( ) = 0.05, so the difference between columns is significant. It can be concluded that teaching vocabulary using Inquiry-Based Teaching to the fourth semester students in STKIP Muhammadiyah Pringsewu Lampung is significantly different from the one using GTM. The mean score of students who are taught using IBT (72.53) is higher than the mean score of students who are taught using Grammar Translation Method (69.19). It means that teaching vocabulary using Inquiry-Based Teaching is more effective than the one using GTM for fourth semester students in STKIP Muhammadiyah Pringsewu Lampung
2. F<sub>0</sub> between rows (7029) is higher than F<sub>t</sub> (4.00) at the level of significance ( ) = 0.05, so the difference between rows is significant. It can be concluded that the achievement of students who have high and those who have low locus of control are significantly different. The mean score of the students having high

locus of control (71.96) is higher than the one of those having low locus of control (69.65). It means that the vocabulary achievement of the students having high locus of control is better than the one of those having low learning locus of control.

3.  $F_0$  interaction (2,942) is lower than  $F_t$  (4.00) at the level of significance ( $\alpha$ ) = 0.05, so there is no interaction between the two variables, the teaching methods and locus of control to teach vocabulary.

The discussion as follows:

1. There is no significant difference between teaching vocabulary using Inquiry-Based Teaching and using Grammar Translation Method.

Based on the theory, Inquiry-Based Teaching is a group learning model which emphasizes on group members' collaboration in mastering the learning materials. The group has responsibility in tutoring their members, and/or sharing knowledge each other. Teaching vocabulary using Inquiry-Based Teaching is able to arouse the students' involvement in the learning process, students are encouraged to involve during the group learning activity. In group

learning, the students' motivation is called to contribute for their success team. Furthermore, the students can easily master and memorize the lack of new words and their form through their interaction in team, each student shows their enthusiasm in the learning process and they are much interested in learning vocabulary. As a result, their vocabulary achievement can surely be improved optimally. When the teacher teaches by using Inquiry-Based Teaching, the class atmosphere changes into a better one and the students are much more interested in the teaching and learning process. Each student contributes in positive competition among the teams during the learning process. They individually in team try hard to do their best to be a great team by carefully paying attention to their team work. In the class learning activity, students gain more from a class discussion when they actively participate in it, and they are more likely to speak openly when their audience is a handful of classmates rather than the class as a whole.

Otherwise, based on theory GTM method is a classical method, focusing

on grammatical rules, memorization of vocabulary, translation of text and doing exercises. Prator and Celce – Murcia in Brown (2001: 3) state that there are some major characteristics of Grammar Translation Method, namely: (1) classes are taught in the mother tongue, with little active use of the target language; (2) much of vocabulary is taught in the form of lists of isolated words; (3) long, elaborate explanations of the intricacies of grammar given; and (4) grammar provides the rules for putting words together and instruction often focuses on the form and inflection of words. In teaching vocabulary by using GTM, students tend to focus on the translation of word based on dictionary usage, less consider about their application in real life. Therefore, IBT is more effective than GTM to teach vocabulary.

However, the theory was not really compatible with the fact in the classroom, IBT or GTM both have well response. the respons shows in the form of mean score. Althought not mean score is different but those are not significantly different.

2. The vocabulary achievement of the students with high locus of control is same with the one of those with low locus of control.

Based on the theory, the students who have high locus of control have better vocabulary achievement than those who have low learning interest. Students who have high locus of control are indicated always active, creative, curious, having good participation in the teaching and learning process. They have their own spirit and motivation to study for getting their best competency and skill, otherwise, because of their curiosity, they like to have a challenging activity in learning vocabulary. According to Hurlock (1983: 420), the interest will add enjoyment to any activity that the individual engages in. If students are interested in an activity, the experiences will be far more enjoyable than if they are bored. Students' interest toward learning English is very important. Their locus of control influences their achievement in learning English. The students having low locus of control are indicated, such as: individualistic, unconfident,

irresponsible, lack of leadership, and subjective thinking. The teacher identify that the students with low locus of control are reluctant to actively participate in the teaching and learning process during the class session. They lazily involve in the class discussion. They do not have enough intention in learning vocabulary. Markshefels (1969: 73) states interest is something that implies or motivates the learner to strive for a particular goal. That is why they cannot improve their lack of vocabulary optimally. Thus, it can be concluded that the students having high locus of control have better vocabulary achievement than those having low learning interest.

However, based on the fact, whether low or high control students have same dependency on teacher instruction. So, the score for high and low locus of control are not significantly different.

3. There is no interaction between teaching methods and learning locus of control

Based on the theory, Inquiry-Based Teaching is more effective than GTM to teach vocabulary for the students

having high learning interest. The method emphasizes on mastering the material through students-centered in the form of small group learning. When the Inquiry-Based Teaching is applied in the vocabulary class, the students are much more interested in the learning process. They feel that the learning method used is a media to explore their interest toward English learning. They are more likely to speak openly in their teams. According to Ur (1996: 17), the group-discussion method is firstly, increasing depth of understanding; secondly, enhancing motivation and generating greater involvement; thirdly, developing positives attitudes toward later material presented in the lesson; fourthly, developing problem-solving skill, and practical problem.

Students with high locus of control have some characteristics: cooperative, self-confident, responsible, leadership, and positive thinking. Students-centered learning should be owned by the students with high learning interest. They are challenged to do the best thing in group learning, not only for their personal goal but also their team

achievement. Additionally, students believe that group learning improves their relationships with other students. Student can share what they have had and get something new from their group environment. The students with high locus of control are more active in teaching and learning process, they have bravery to consult their learning problem to their teacher. They are also brave to answer teacher's question whenever they are asked or not, they also have strong intention in learning activity, therefore, it makes them understand the lesson easily. Elliot and friends (1999: 349) state that interest occurs when a student's needs, capacities, and skills are good match for the demands offered by particular activity. The application of Inquiry-Based Teaching in the vocabulary class can arouse the students' learning interest. Each student interacts with the teammates and they feel responsible to themselves or the other especially in helping their group member in facing material given. When the students' locus of control is high, it is expected that they can improve their competence and achievement optimally. Therefore,

Inquiry-Based Teaching is effective to teach vocabulary for students who have high learning interest.

GTM method is more effective than STAD for the students having low interest. GTM is focused on learning grammar rules and their application in translating texts from one language into the other. Vocabulary is presented mainly through direct translation from the native language and memorization. Prator and Celce-Murcia in Brown (2001: 3) state that GTM method is a classical method, focusing on grammatical rules, memorization of vocabulary, translation of text, and doing written exercises.

The students who have low locus of control have some characteristics, such as: individualistic, unconfident, irresponsible, lack of leadership, and subjective thinking. They tend to regard that the easier way in mastering a set of English words and their roles are by translating them into their mother tongue. The students tend to focus on the meaning of each word and memorize them personally rather than its application in real life. The students' involvement in the learning



process depends on their willingness to understand the subject of the lesson. Students who have low locus of control in a subject learn less effectively than students who are engaged (Fischer & Horstendahl, 2004). Therefore, GTM is more effective than Inquiry-Based Teaching to teach vocabulary for the students who have low learning interest.

Thus, it should be there is interaction between teaching methods and students' interest for teaching vocabulary. However, the theory was not really compatible with the fact in the classroom, IBT or GTM both have well response. The respons shows in the form of mean score. Although not mean score is different but those are not significantly different. And whether low or high control students have same dependency on teacher instruction. So, the score for high and low locus of control are not significantly different.

#### 4. CONCLUSION

Based on the statistical analysis, the findings of the research are as follows: The inquiry-based teaching is not significant effective than grammar-

translation method to teach vocabulary to the fourth semester students in STKIP Muhammadiyah Pringsewu Lampung in the academic year of 2014/2015. The students who have high locus of control have same vocabulary mastery than those who have low locus of control to the fourth semester students in STKIP Muhammadiyah Pringsewu Lampung in the academic year of 2014/2015. There is no interaction between teaching methods and student's locus of control in teaching reading to the fourth semester students in STKIP Muhammadiyah Pringsewu Lampung in the academic year of 2014/2015.

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