THE EFFECTIVENESS OF INQUIRY BASED TEACHING TO TEACH GRAMMAR VIEWED FROM STUDENTS’ RISK-TAKING

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Abstract

This research is aimed at finding out whether: first, inquiry based teaching is more effective than lecture method to teach grammar; second, the students with high level of risk-taking have better grammar mastery than those with low level of risk-taking; and third, there is an interaction between the teaching methods and students’ risk-taking in teaching grammar. This research is an experimental study. It was carried out at the English Education Department of Veteran Bangun Nusantara University Sukoharjo in the Academic Year of 2013/2014. The population of this research is the first semester students of the English Education Department of Veteran Bangun Nusantara University Sukoharjo in the Academic Year of 2013/2014. The sample of this research consists of two classes; class A was used as the experimental group treated by using inquiry based teaching and class B as the control group treated by using lecture method. The sampling technique used is cluster random sampling. The instruments used to collect the data are students’ risk-taking questionnaire and grammar mastery test. The data were analyzed by using multifactor analysis of variance (ANOVA 2X2) and Tukey test. Based on the results of the analysis, the findings of this research are: (1) inquiry based teaching is more effective than lecture method to teach grammar; (2) the students with high level of risk-taking have better grammar mastery than those with low level of risk-taking; and (3) there is an interaction between teaching methods and students’ risk-taking to teach grammar. In addition, the result of Tukey test shows that: (a) for the students having high risk taking, inquiry based teaching differs significantly from lecture method to teach grammar because $q_o$ (between $A_1B_1$ and $A_2B_1$) is higher than $q_t$ and inquiry based teaching is more effective than lecture method to teach grammar because the mean of $A_1B_1$ is higher than $A_2B_1$; and (b) for the students having low risk taking, lecture method does not differ significantly from inquiry based teaching to teach grammar because $q_o$ (between $A_1B_2$ and $A_2B_2$) is lower than $q_t$. Based on the above findings, it can be concluded that inquiry based teaching is an effective method to teach grammar for the first semester students of the English Education Department of Veteran Bangun Nusantara University Sukoharjo in the Academic Year of 2013/2014. The effectiveness of the method is influenced by the students’ level of risk-taking.

Key words: Inquiry based Teaching, Lecture Method, Grammar Mastery, Risk-taking, Experimental Study

INTRODUCTION

Lock (1997: 1) argues that grammar is a set of rules which specify all the possible grammatical structures of the language including two aspects. They are the arrangement of words and the
internal structure of word. In line with Lock, Brown (1994: 347) states that grammar is a system of rules governing the conventional arrangement and relationship of words in a sentence. Grammar has important role in the existence of the four language skills because grammar is the basic of English. Harmer (1998: 5) states that every sentence that performs functions is made up of the grammatical elements. Inferring from Harmer, we know that grammar is a crucial point in language, no matter how simple a sentence is, it still needs grammar to convey its meaning. Although we know that grammar has an important role in language learning, the learners often feel that grammar has become a complicated part in language learning. It can be a big problem for the learners if they lack grammar understanding.

The researcher prefers to conduct this study on grammar mastery because grammar is so important. All of English skills need grammar. Strumpf and Douglas (2004: 14) say “We study grammar so that we may speak and write in a clearer and more effective manner”. River (1987: 15) states, “Grammar is a set of formal patterns in which the words are arranged in order to convey larger meaning”. So, the function of grammar is to convey meaning. Meaning is used because we want to express our idea, feeling, thought, or opinion. Besides, most English tests, grammar mastery is also tested. While, based on the observation and interview to teacher and students, some students still have difficulty to learn grammar. They get confused when they have the grammar test. The students were looked confused in using pronoun, comparison, article, adverb, and conjunction. They still made mistake when doing the exercises. They had not understood about the concepts. Some of them understood when the lecturer was explaining, but they forgot again when they were doing the exercises. Successful grammar teaching is also based on the method used by the teacher. Method is important to make students interested in learning grammar, so they can master their grammar. Based on the observation and interview to the teacher and students, in the grammar lesson, the teachers tend to use a deductive strategy, in which they start the lessons by giving the rules of grammar accompanied with examples of rule application in sentences. Teacher uses the traditional method, that is lecture method. According to Flight (2003: 2), a lecture is an oral presentation intended to present information or teaches people about a particular subject, for example by a university or
college teacher. This kind of routine instruction may result in the students' boredom which gradually discourages them and, as a result they can not maximize their learning outcome.

The researcher makes the conclusion that students need the method which is more interesting. The method which can make them more active and involve them, so the possibility of forgetting is less because they solve the concept of grammar by themselves. They are not only passive just accepting the material from the teacher. Regarding the aforementioned phenomenon, the researcher wants to solve the problem in handling the grammar lessons by applying the Inquiry Based Teaching. According to Kindsvatter et al (1996: 258), Inquiry is a teaching method which stimulates the skill in critical thinking to analyze and solve the problems systematically. Inquiry is a very effective method as it can be used to teach the material, solve problems, train critical thinking as well as make a decision. Choosing Inquiry based Teaching in teaching grammar because grammar is viewed as the difficult part of English, so students can participate to find out the grammar concept. They will more remember about the concept because they learn by themselves.

Another factor that influences grammar mastery is risk-taking. Learning is expected to flourish in an atmosphere in which the learner is willing to take risks, and it is the task of the instructor to create such an atmosphere for learning (Zafar and Meenakshi, 2012: 226). Risk taking is an important characteristic of successful learning of a second language (Brown, 2007: 160). He also says that learners having risk taking are able to gamble a bit, to be willing to try out hunches about the language and take the risk of being wrong. Risk-taking can function so well in the foreign language because the students are not afraid to make mistakes. They do not care if they say or write something completely wrong, as long as they are understood. This personality is commonly created by the people’s mental braveness and their high motivation to get the greatest result from their learning.

Considering the background above, the writer formulates the problems of this study as follows: (1) is the use of inquiry based teaching method more effective than lecture method to teach grammar to the first semester students of English Education Department of Veteran Bangun Nusantara University Sukoharjo in the Academic Year of 2013/2014?; (2) do the students with high risk-taking have better grammar mastery than those who have low risk-taking to the first semester students of English Education Department of Veteran Bangun Nusantara University...
Sukoharjo in the Academic Year of 2013/2014? (3) is there an interaction between teaching methods and levels of risk-taking in teaching grammar to the first semester students of English Education Department of Veteran Bangun Nusantara University Sukoharjo in the Academic Year of 2013/2014?

Based on the problem statements above the objectives of the study is to find out whether: (1) to find out whether using inquiry based teaching method is more effective than lecture method in teaching grammar to the first semester students of English Education Department of Veteran Bangun Nusantara University Sukoharjo in the Academic Year of 2013/2014; (2) to find out whether the students with high risk-taking have better grammar mastery than those who have low risk-taking to the first semester students of English Education Department of Veteran Bangun Nusantara University Sukoharjo in the Academic Year of 2013/2014; (3) to find out whether there is an interaction between teaching methods and levels of students’ risk-taking in teaching grammar to the first semester students of English Education Department of Veteran Bangun Nusantara University Sukoharjo in the Academic Year of 2013/2014.

Grammar has some definitions. Furthermore, Richards, Platt, and Weber in Nunan (2005: 2) define that grammar is a description of the structure of a language and the way in which units such as words and phrases are combined to produce sentences in the language. Ur (2009: 87) states that grammar is a set of rules that defines how words (or part of words) are combined or changed to form acceptable units of meaning within a language. From explanations above, the writer concludes that grammar is a set of language rules that regulates the pattern of sentences to convey the meaning.

Ur (2009: 4) says that grammar may be roughly defined as the way a language manipulates and combines words in order to form longer units of meaning. We have to know grammar because we need to express our feeling, idea, and so on in an appropriate way.

According to Harmer (1999: 1) the grammatical information can be given to students in two major ways. The first one could be extremely covert and the second will be made extremely overt. Covert grammar teaching means that grammatical facts are hidden from the students- even though they are learning the language. Students may be asked to do any activity where a new grammar is presented or introduced, but their attention will be drawn to this activity not to the grammar. Overt grammar teaching means that the
teacher actually provides the students grammatical rules and explanations-the information is openly presented. With overt teaching grammatical rules are explicitly given to students, but with covert teaching students are simply asked to work with new language to absorb grammatical information which will help them to acquire the language as a whole.

According to Haunstein (1998: 96), mastery is the ability and desires to originate and perfect abilities and skills. Based on the argument, grammar mastery is great skill of people to use the knowledge of language rule that regulates the pattern of sentences to convey the meaning.

Based on the structure 1 syllabus of the first semester in Veteran Bangun Nusantara University Sukoharjo in the academic year of 2013/2014, the grammar materials taught are Noun, Adjective, Comparison, Article, Pronoun, Preposition, Verb, Adverb, and Conjunction. For the study, the writer focuses on the comparison, article, pronoun, adverb, and conjunction. The writer decided to choose five aspects because she has interviewed to the students about the materials which they have not understood. They are still confused about these aspects. Covert grammar is applied in inquiry-based teaching method, and overt grammar is applied in lecture method.

Branch (2004: 11) defines Inquiry-based teaching is a process where students are involved in their learning, formulate questions, investigate widely and then build new understandings, meanings and knowledge. Elliot (2000: 404) defines inquiry-based teaching by saying that inquiry teaching is a term for teaching that permits students to be active partners in the search for knowledge, thus enhancing the meaning of what they learn. Slameto (2003: 116) says that inquiry-based teaching is a teaching term which follows the concept in giving opportunity to students to develop their intellectual potency through their own efforts to find something as the answer of certain problem through investigation. The definitions imply that inquiry-based teaching is a teaching method that focuses on students’ investigation on questions that are challenging in which the questions will lead students to be active and creative to find the answers.

Dewey (2010: 2) says the process of inquiry-based teaching as follows: (1) asking, there is a question or a problem the learners begin to describe; (2) investigating, in order to answer the question, the students begin to gather information by doing investigation; (3) creating, students are asked to create new thought and ideas outside their
prior knowledge; (4) discussing, students share their new ideas with others; and (5) reflecting, it is chance for students to look back to the triggering question, the investigation, and the conclusion or the new thoughts.

The advantages of inquiry-based teaching are that it is essential, it can awake one's confidence, interest, and self-esteem, its best when working on interdisciplinary projects that reinforce multiple skills or knowledge areas in different facets of the same project, it can work with any age group, it acknowledges that children especially children from minority and disadvantaged communities.

According to Flight (2003: 2), a lecture is an oral presentation intended to present information or teaches people about a particular subject, for example by a university or college teacher. According to Gulo (2008: 136), the lecture method is the only conventional method and still used in teaching learning strategy. It is the oldest, the most widely used, and the most frequently used in form of presentation, lively teacher should know how to develop and present a lecture. They also should understand the advantages and limitations of this method. Lectures are used for introduction of new subjects, summarizing ideas, showing relationships between theory and practice, and reemphasizing main points. There are three steps of lecture method. According to Flight (2003: 5), the steps of lecture method. They are preparing, delivering, and practicing.

The advantages of this method are that it gives the teachers chance to expose students to unpublished or not readily available material, it allows the teachers to precisely determine the aims, content, organization, place, and direction of a presentation, it can be used to arouse interest in a subject, it can complement and clarify text material, it complements certain individual learning preferences, and facilitates large-class communication. While the disadvantages of this method are that it is teacher-centered process, it makes students hearers and recorder, it is verbalism, lecture process runs depending on the speed of speaking and the dialect of the teacher.

Another important thing that needs to be considered in teaching grammar as second or foreign language is the students' individual differences. One of them is risk-taking. According to Brown (2000: 149), risk-taking is an important characteristic of successful learning of a second language, which refers to the learner’s ability to gamble a bit, to be willing to try out hunches about the language, and take the risk of being wrong. According to Skehan
(1989) in Shalabi (2003: 190) and Ely (1986) in Maeda (2010: 40) mentions that risk-taking involves four indicators; a lack of hesitancy about using newly encountered element, a willingness to use linguistics elements perceived to be complex or difficult, a tolerance of possible incorrectness or inexactitude in using the language, and an inclination to rehearse a new element silently before attempting to use it aloud. Bang (1999: 13) states that learning is the reward for taking risks. Learners have to be able to gamble a hit, to be willing to try out practice a new thing and take a risk of being wrong, making mistakes, being loss or failure. Rubin and Bebee cited in Stephen Luft (2007: 16) identify the following four relate risk-taking: (a) being willing to appear foolish in order to communicate and get the message occurs; (b) using the language when not required to do so; (c) being comfortable with uncertainty; (d) willing to make mistakes in order to learn and communicate.

Meanwhile, Brown (2004: 140) states some activities for teachers to encourage students’ risk-taking: praise students for making sincere effort to try out language, use fluency exercises where error are not corrected at that time, and give outside-of-class assignments to speak or write or otherwise try out the language. According to Irwin (1993: 3), the components of risk-taking are high sensation seeking tendency, spontaneity, a decision maker, and aggressiveness.

Based on the various theories above, it can be assumed that risk-taking refers to a situation where an individual has to make a decision in involving choice between alternatives of different desirability; the outcome of the choice is uncertain; there is a possibility of failure. The indicators of risk-taking are decision making, sensation-seeking, and tolerance ambiguity.

Based on the theoretical description above, the hypotheses are formulated as follows: (1) using inquiry-based teaching method is more effective than lecture method in teaching grammar for the first semester students of English Education Department of Veteran Bangun Nusantara University Sukoharjo in the academic year of 2013/2014; (2) the students with high risk-taking have better grammar mastery than the students with low risk-taking for the first semester students of English Education Department of Veteran Bangun Nusantara University Sukoharjo in the academic year of 2013/2014; (3) there is interaction effect between teaching methods and level of students’ risk-taking for teaching grammar for the first semester students of English Education Department of Veteran Bangun Nusantara University Sukoharjo in the academic year of 2013/2014;
Bangun Nusantara University Sukoharjo in the academic year of 2013/2014.

RESEARCH METHODOLOGY
This research was conducted at the English Education Department of Veteran Bangun Nusantara University which is located on at Jl. Letjend. S. Humardani No. 1 Jombor, Sukoharjo, Central Java. The research was conducted from August 2013 to January 2014 beginning from writing the research proposal, conducting the research, and writing the research report.

Experimental study was employed in conducting this research. The purpose is to determine cause-and-effect relationship. Through experimentation, cause and effect relationship can be identified. Because of this ability to identify caution, the experimental approach has come to represent the prototype of scientific method for solving problems (Christensen and Johnson, 2000: 23). The research design used in this research was factorial design 2x2. It allows a researcher to study the interaction of an independent variable with one or more variables (Tuckman, 1978: 135).

The population of the research was the first semester students of the English Education Department of Veteran Bangun Nusantara University Sukoharjo in the academic year of 2013/2014. The sample of this research consist of two classes; class A as experimental group treated by using inquiry based teaching and class B as the control group treated by using lecture method. Each class consists of 30 students which were divided into two group based on the students’ level of risk-taking. The sampling technique used was cluster random sampling technique. In this study, the researcher set the experimental and control group using lottery. The data obtained are the result of risk-taking questionnaire and grammar mastery test. Thus, there are two techniques of collecting data; questionnaire and grammar mastery test. Questionnaire is used to know the level of students’ risk-taking and grammar test is used to know the result of students’ grammar mastery after the treatment. The data are analyzed using descriptive analysis and inferential analysis. Descriptive analysis is used to know the mean, median, mode and standard deviation of the scores of the grammar mastery test. To know the normality and the homogeneity of the data, the writer uses normality and homogeneity test. The normality and homogeneity tests are done before testing the hypothesis. Inferential analysis used is multifactor analysis of variance (ANOVA 2x2). It is used to test the hypothesis. $H_o$ is rejected if $F_o$ is higher than $F_t$. If $H_o$ is
rejected, the analysis is continued to know which group is better using Tukey test.

RESEARCH FINDINGS AND DISCUSSION

Table 1. Normality Test

<table>
<thead>
<tr>
<th>No.</th>
<th>Data</th>
<th>(Lo)</th>
<th>(Lt)</th>
<th>α</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>A1</td>
<td>0.085</td>
<td>0.161</td>
<td>0.05</td>
<td>Normal</td>
</tr>
<tr>
<td>2.</td>
<td>A2</td>
<td>0.1360</td>
<td>0.161</td>
<td>0.05</td>
<td>Normal</td>
</tr>
<tr>
<td>3.</td>
<td>B1</td>
<td>0.0870</td>
<td>0.161</td>
<td>0.05</td>
<td>Normal</td>
</tr>
<tr>
<td>4.</td>
<td>B2</td>
<td>0.128</td>
<td>0.161</td>
<td>0.05</td>
<td>Normal</td>
</tr>
<tr>
<td>5.</td>
<td>A1, B1</td>
<td>0.0960</td>
<td>0.220</td>
<td>0.05</td>
<td>Normal</td>
</tr>
<tr>
<td>6.</td>
<td>A1, B2</td>
<td>0.1570</td>
<td>0.220</td>
<td>0.05</td>
<td>Normal</td>
</tr>
<tr>
<td>7.</td>
<td>A2, B1</td>
<td>0.1390</td>
<td>0.220</td>
<td>0.05</td>
<td>Normal</td>
</tr>
<tr>
<td>8.</td>
<td>A2, B2</td>
<td>0.11</td>
<td>0.220</td>
<td>0.05</td>
<td>Normal</td>
</tr>
</tbody>
</table>

Based on the table above, all the highest value of $L_0$ is lower than $L_t$ or $(L_0 < L_t)$ at the significance level $\alpha = 0.05$, it can be concluded that the data are in normal distribution.

Table 2. Homogeneity Test

<table>
<thead>
<tr>
<th>Sample</th>
<th>df</th>
<th>$1/(df)$</th>
<th>$s_i^2$</th>
<th>log $s_i^2$</th>
<th>$(df) \log s_i^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>14</td>
<td>0.071429</td>
<td>43.63095</td>
<td>1.639795</td>
<td>22.95713</td>
</tr>
<tr>
<td>2</td>
<td>14</td>
<td>0.071429</td>
<td>68.63095</td>
<td>1.83652</td>
<td>25.71128</td>
</tr>
<tr>
<td>3</td>
<td>14</td>
<td>0.071429</td>
<td>68.27381</td>
<td>1.834254</td>
<td>25.67956</td>
</tr>
<tr>
<td>4</td>
<td>14</td>
<td>0.071429</td>
<td>59.52381</td>
<td>1.774691</td>
<td>24.84567</td>
</tr>
<tr>
<td>Sum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>99.19363</td>
</tr>
</tbody>
</table>

Based on the result of the calculation, $\chi^2_0$ (0.895) is lower than $\chi^2_0$ (7.815). Thus, it can be concluded that the data are homogenous.

Table 3. The mean scores of the Cells

<table>
<thead>
<tr>
<th></th>
<th>$\bar{X}_1$</th>
<th>$\bar{X}_2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>84.67</td>
<td>75.16667</td>
</tr>
<tr>
<td>B2</td>
<td>72.83</td>
<td>73.33333</td>
</tr>
<tr>
<td>78.75</td>
<td>74.25</td>
<td></td>
</tr>
</tbody>
</table>

Table 4. The Summary of Analysis of Variance 2 x 2

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>$F_o$</th>
<th>$F_{0.05}$</th>
<th>$F_{0.01}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between columns (The Teaching Methods)</td>
<td>303.75</td>
<td>1</td>
<td>303.75</td>
<td>5.0612</td>
<td>4.00</td>
<td>7.08</td>
</tr>
<tr>
<td>Between rows (Risk-taking)</td>
<td>700.4167</td>
<td>1</td>
<td>700.4167</td>
<td>11.6707</td>
<td>4.00</td>
<td></td>
</tr>
<tr>
<td>Columns by rows (Interaction)</td>
<td>375</td>
<td>1</td>
<td>375</td>
<td>6.2484</td>
<td>4.00</td>
<td></td>
</tr>
<tr>
<td>Between groups</td>
<td>1379.167</td>
<td>3</td>
<td>459.7223</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within groups</td>
<td>3360.833</td>
<td>56</td>
<td>60.0149</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>4740</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the table above, it can be concluded that: (a) because $F_o$ between columns (5.0612) is higher than $F_t(4.00)$ at the level of significance $\alpha = 0.05$, $H_0$ is rejected and the difference between columns is significant. There is a significant difference between the students who are taught by using inquiry based teaching and those who are taught by using lecture method in their grammar mastery. The mean score of the students who are taught by using inquiry based teaching (78.74) is higher than the mean score of students who are taught by using lecture method (74.25). It can be concluded that inquiry based teaching is more effective than lecture method to teach grammar; (b) Because $F_o$ between rows (11.6707) is higher than $F_t(4.00)$ at the level of significance $\alpha = 0.05$, $H_0$ is rejected and the difference between rows is significant. The students with high level of risk-taking and those with low level of risk-taking
are significantly different in their grammar mastery. The mean score of the students with high level of risk-taking (79.92) is higher than those with low level of risk-taking (73.08). It can be concluded that the students with high level of risk-taking have better grammar mastery than those with low level of risk-taking; (3) because $F_o$ columns by rows (6.2484) is higher than $F_i$ (4.00) at the level of significance $\alpha = 0.05$, $H_0$ is rejected and there is an interaction between teaching methods and students’ risk-taking to teach grammar. Thus, it can be concluded that the effect of teaching methods on grammar depends on the level of students’ risk-taking.

Table 6. The Summary of Tukey Test

<table>
<thead>
<tr>
<th>No</th>
<th>Data</th>
<th>Sample</th>
<th>$q_o$</th>
<th>$q_t$</th>
<th>$\alpha$</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$A_1$ and $A_2$</td>
<td>60</td>
<td>3.181</td>
<td>2.83</td>
<td>0.05</td>
<td>Significant</td>
</tr>
<tr>
<td>2</td>
<td>$B_1$ and $B_2$</td>
<td>60</td>
<td>4.836</td>
<td>2.83</td>
<td>0.05</td>
<td>Significant</td>
</tr>
<tr>
<td>3</td>
<td>$A_1B_1$ and $A_2B_1$</td>
<td>30</td>
<td>4.749</td>
<td>2.89</td>
<td>0.05</td>
<td>Significant</td>
</tr>
<tr>
<td>4</td>
<td>$A_1B_2$ and $A_2B_2$</td>
<td>30</td>
<td>0.249</td>
<td>2.89</td>
<td>0.05</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

Based on the table above, it can be known that: (a) the score of $q_o$ between columns is 3.181 and the score of $q_i$ of Tukey’s table at the level of significance $\alpha = 0.05$ is 2.83. Because $q_o > q_i$ or $q_o$ (3.181) is higher than $q_i$ (2.83), it can be concluded that there is a significant difference on the students’ grammar mastery between those who are taught using inquiry based teaching and those who are taught using lecture method. Meanwhile, based on the calculation result, the mean of the students who are taught using inquiry based teaching (78.75) is higher than that of those who are taught using lecture method (74.25), it can be concluded that inquiry based teaching is more effective than lecture method to teach grammar; (b) the score of $q_o$ between rows is 4.836 and the score of $q_i$ of Tukey’s table at the level of significance $\alpha = 0.05$ is 2.83. Because $q_o > q_i$ or $q_o$ (4.836) is higher than $q_i$ (2.83), it can be concluded that there is a significant difference on the students’ grammar mastery between those who have high risk taking and those who have low risk taking. Based on the calculation result, the mean of the students who have high risk taking (79.92) is higher than that of those who have low risk taking (73.08), it can be concluded that the students who have high risk taking have better grammar mastery than those who have low risk taking; (c) the score of $q_o$ between columns $A_1B_1$ and $A_2B_1$ is 4.749 and the score of $q_i$ of Tukey’s table at the level of significance $\alpha = 0.05$ is 2.89. Because $q_o > q_i$ or $q_o$ (4.749) is higher than $q_i$ (2.89), it can be concluded that there is a significant difference on the students’ grammar mastery of the students having high risk taking between those who are taught using inquiry based teaching.
and those who are taught using lecture method. Meanwhile, the mean score of $A_1B_1$ (84.67) is higher than $A_2B_1$ (75.16667), it can be concluded that inquiry based teaching is more effective than lecture method to teach grammar for the students who have high risk taking; (d) the score of $q_o$ between columns $A_1B_2$ and $A_2B_2$ is 0.249 and the score of $q_t$ of Tukey's table at the level of significance $\alpha = 0.05$ is 2.89. Because $q_o < q_t$ or $q_o$ (0.249) is lower than $q_t$ (2.89), it can be concluded that there is no significant difference on the students' grammar mastery of the students having low risk taking between those who are taught using inquiry based teaching and those who are taught using lecture method. Meanwhile, the mean score of $A_1B_2$ (72.83) is lower than $A_2B_2$ (73.33), it can be concluded that lecture method does not differ significantly from inquiry based teaching to teach grammar for the students who have low risk taking.

Based on the findings of the study, a discussion is presented as follows:

1. **Inquiry based teaching is more effective than lecture method**

Inquiry based teaching is process of learning which put the students as a center (student center style) that encourages students to be active in teaching learning process. It is line with expert’s statement; Elliot (1999: 404) defines inquiry based teaching by saying that inquiry based teaching is a term for teaching that permits students to be active partners in the search for knowledge, thus enhancing the meaning of what they learn. Sund and Trowbridge (1993: 62) state that inquiry occurs when an individual is involved mainly using his mental process to mediate or discover some concept or principle. It means that inquiry leads students to learn through experience, knowledge, and investigation. Through the process of inquiry, they have a need or want to know information and knowledge that lead them to understand both and to solve problem. Learning grammar by using inquiry based teaching method, it can encourages students' thinking and activity. Students will be anxious and active to know and find the grammar. Students participate to find the grammar concept, so they will remember for longer time because they learn by themselves.

On the other hand, lecture method is a method of teaching in which a teacher presents an informative talk to a group of students. In this method, the teacher talks much about grammar material. The students listen, take notes of the ideas worth remembering, and thinks over them later. Johnson and Johnson (1994: 123) say that it is typically a long period of uninterrupted teacher-centered that relegates students to the role of
passive “spectator” in the classroom. Moore (1994: 182) also states that lecture method fosters passive learning with very low student involvement. This lack of class participation dampens the students’ motivation to learn and impedes learning process. It minimizes the students’ spirit and curiosity and discourages critical thinking and initiative in grammar learning. This turns the students into passive, apathetic, individuals, and being satisfied to do minimal work necessary for passing the course. Therefore, inquiry based teaching is more effective than lecture method to teach grammar.

2. The students who have high risk taking have better grammar mastery than those who have low risk taking

Liu (2008: 3) states that with a more risk taking, students tended to be more sociable in English. Students having high risk taking make an accurate guesses, are more successful than those who have low risk taking. Brown (2000: 7) considers high risk taking as a positive characteristic which could enhance learning language. Therefore, the students having high risk taking would like to take part enthusiastically when the teacher offers them to involve actively in learning process. Bang (1999: 5) also states that risk taking is an impulse to take a decision about something new and different, without putting focus on success or failure, but learning as the reward of risk taking. On the contrary, the students with low risk taking tend to choose feeling safe, without being worried about the mistake. Students with low risk taking tend to be passive to improve their study. It is a fear for them to express their opinion. They feel anxious or any kinds of pressure in learning process. Low risk-taking students are unwilling to take risk; unwilling to guess, to communicate and get the message across, to make mistakes, to appear foolish in order to learning, and to use what knowledge they have in the target language. They are not able to gamble, to try out the hunches about something new, and take the risk of being wrong. Skehan (1989) in Shalabi (2003: 19) state that students with low level of risk-taking have much hesitancy about using newly encountered linguistic element and many inclinations to rehearse a new element silently before attempting to use it aloud. They are unwilling to use linguistics elements perceived to be complex or difficult. Even, they don’t have a tolerance of possible incorrectness or inexactitude in using the language. As a result, they don’t participate actively in language classroom. Therefore, it can be concluded that students with high
level of risk-taking have better grammar mastery than those with low level of risk-taking.

3. Interaction between teaching methods and students' risk taking in teaching grammar

In inquiry based teaching, the students are encouraged and motivated to be active students. Slameto (2003: 116) says that inquiry-based teaching is a teaching term which follows the concept in giving opportunity to students to develop their intellectual potency through their own efforts to find something as the answer of certain problem through investigation. Dewey (2010: 2) states the stages of inquiry-based teaching are asking, investigating, creating, discussing, and reflecting. Students are demanded to explore themselves to find out the concept of material. They learn by themselves from some sources, and then they share their result of investigation. It means this method needs the students who have high risk taking. Students having risk taking tend to be active. They are willing to guess although they have not known. Beebe in Gass and Selinker (2008: 433) defines risk-taking as a situation where an individual has to make a decision involving choice between alternatives of different desirability; the outcome of the choice is uncertain; there is a possibility of failure. Students having high risk taking are willing to make decision to answer the teacher question. They do not care that their answers are true or false. The important one is they have tried and effort to answer. If it is wrong, they can learn by their mistake. They think error is a part of learning. Therefore, inquiry based teaching is effective to teach grammar to the students with high level of risk-taking.

On the contrary, the students having low risk taking who do not encourage themselves in learning will be comfortable when they are in such situation. They might not be interested to be active students in learning activities. According to Liu and Jackson (2011: 35) in numerous SL/FL learning situations, learners, especially Asian learners, have been observed that they are keep silent in language class, rarely respond to teachers’ questions, or actively take part in class interactions. These behaviors are frequently interpreted as a lack of motivation, low proficiency in target language, peer pressure, fear of losing face, lack of confidence, fear of making mistake, and so on.

In lecture method does not require the students to take a risk. Students only listen and pay attention to the teacher's explanation. They are the passive object in the classroom activities. The students who have low risk-taking are passive students. They tend to be passive, lazy, and silent. 
They feel embarrassed when making mistakes and being laughed by their friends. Thus, lecture method is effective to teach grammar to the students with low level of risk-taking.

The result of ANOVA test shows that $F_o$ is higher than $F_t$ which means that inquiry based teaching differs significantly from lecture method for the students having high risk taking. However, the result of tukey test shows that inquiry based teaching does not differ significantly from lecture method for students having low risk taking because $q_o$ is lower than $q_t$. Although, the mean score of students having low risk taking who were taught lecture method is better than the mean score of students having low risk taking who were taught inquiry based teaching, but it is not significant because the difference score is only 0.5. The students said that there were some questions that they did not answer because they were afraid to make mistakes. This action is a character of students who have low risk taking. It is difficult for them to try to answer when they are doubt. So, it impacts to their score result.

From the above research findings, the result of ANOVA test is used to conclude. So, there is an interaction between teaching methods and risk-taking toward students’ grammar mastery.

**CONCLUSION, IMPLICATION, AND SUGGESTION**

Based on the description of the data analysis, some findings of the research are: (1) inquiry based teaching is more effective than lecture method to teach grammar for the first semester students of the English Education Department of Veteran Bangun Nusantara University Sukoharjo in the Academic Year of 2013/2014; (2) the students with high level of risk-taking have better grammar mastery than those with low level of risk-taking for the first semester students of the English Education Department of Veteran Bangun Nusantara University Sukoharjo in the Academic Year of 2013/2014; (3) there is an interaction between teaching methods and the students’ risk-taking to teach grammar for the first semester students of the English Education Department of Veteran Bangun Nusantara University Sukoharjo in the Academic Year of 2013/2014.

Based on the above findings, it can be concluded that inquiry based teaching is an effective method to teach grammar for the first semester students of the English Education Department of Veteran Bangun Nusantara University Sukoharjo in the Academic Year of 2013/2014. The effectiveness of the method is influenced by the students' level of risk-taking.
Based on the conclusion above, inquiry based teaching is proved as an effective method to teach grammar. In order to achieve a good result, it must be applied properly in the teaching-learning process. The procedures of inquiry based teaching are: (1) teacher distributes the handout of reading text which consists of predetermined grammatical rules that become the topic of the lessons; (2) teacher gives questions about the grammatical concept which is being learned; (3) teacher instructs the students to work in groups to find the rules of grammatical concept which is being learned; (4) students investigate the answers from some sources; (5) students write their result of investigation; (6) students present their answers in front of the class and teacher guides the students' understanding of the grammatical concept used in the text; (7) teacher gives the sentences with the inclusion of grammatical mistakes and asking the students to solve the grammar problems; (8) teacher and students discuss together about the sentences with the inclusion of grammatical mistakes; (9) teacher concludes the grammar concept which is being learned.

Based on the researcher's experience in doing the research, the researcher would like to give some suggestions as follows: (1) teachers can apply inquiry based teaching to teach grammar; (2) teachers have to consider that risk-taking is one of factors that may affect the students' grammar mastery, pay more attention to the students with low level of risk-taking, find out factors influencing the students' risk-taking, and encourage them to be high risk-taking students; (3) students are expected to be more active in the teaching and learning process in order to develop their grammar mastery; (4) it is suggested for students with low level of risk-taking to encourage themselves to be high risk-taking students in learning language; (5) the next researchers can use the result of this research as the starting point for conducting the next investigation with different students' condition and skill; (6) the next researchers can also develop teaching methods used in this research as a way of making revision to the weaknesses of this research.

REFERENCES


