THE INFLUENCE OF JIGSAW TECHNIQUE AND WRITING MOTIVATION ON BUSINESS LETTER WRITING ACHIEVEMENT

Darmawan Budiyanto (1) and Gaya Tridinanti (2)

Tridinanti University of Palembang
darmawanbudiyanto@univ-tridinanti.ac.id (1), gaya@univ-tridinanti.ac.id (2)

ABSTRACT

The purposes of this study were in this study, the objectives of the research were to find out whether: (1) there was a significant difference in business letter writing achievement between the students who are taught by using jigsaw technique and those who are taught by using conventional technique, (2) there was a significant difference in business letter writing achievement between the students who have high writing motivation taught by using jigsaw technique and those who are taught by using conventional technique, (3) there was a significant difference in business letter writing achievement between the students who have low writing motivation taught by using jigsaw technique and those who are taught by using conventional technique, (4) there was a significant difference in business letter writing achievement between the students who have high and those with low writing motivation taught by using jigsaw technique, (5) there was a significant difference in business letter writing achievement between the students who have high and those with low writing motivation taught by using conventional technique (6) there was an interaction effect of jigsaw technique and writing motivation on the students’ business letter writing achievement. The population of this study was the second semester students of Economic Study Program Tridinanti University of Palembang with a total number of 80 students, while the sample consisted of 80 students who were divided into two groups: 40 students are in the experimental group and 40 students are in the control group. The writer taught the experimental group by using Jigsaw technique and the control group by using conventional technique. Based on the result of calculating using Independent sample test, it was found as follows. First, P-output was 0.00 <∞ 0.05 it means that Ho was rejected. Second, P-output was 0.001 <∞ 0.05, it meant that Ho was rejected. Third, P-output was 0.015 <∞ 0.05, it meant that Ho was rejected. Fourth, P-output was 0.064 > ∞ 0.05, it meant that Ho was accepted. Firth, P-output was 0.148 > ∞ 0.05, it meant that Ho was accepted. Finally, P-output of two-way ANOVA was 0.572 > ∞ 0.05, meant that Ho was accepted. So, it concluded that jigsaw technique could be applied in all level of students’ motivation, not only high but also low motivation.

Keywords: Jigsaw Technique, Writing Motivation and Students' Achievement.

A. INTRODUCTION

Language as a means of communication which has universal characteristics, it is acquired by all people in much the same way, both spoken and written language. Without language, it will be hard to have effective communication around the world.

There are four language skills that should be learned, that is listening, speaking, reading, and writing (Brown, 2001, p. 232). Listening and reading are called the passive or receptive skill, while speaking and writing are called active or productive skill. As is well known, there are four general aims to teach the students to hear and understand the spoken language, to understand what they read to speak the language and write it.

Writing makes a special contribution to the way people think. If one wishes to discover what is ‘finest’ what is ‘most beautiful’, what is quite simply, it is to the written language that one writing makes another important contribution to learning. Writing helps us to find and establish our own network of information and ideas since
writing will help us to hunt for precious samples and enable to create new ideas, as it always expresses new meanings (Posko, 2010, p. 2).

The students should learn business letter writing includes identifying paragraph element such a topics, controlling ideas, topic sentences, supporting detail, and cohesive devices in the context of correspondence. The course also equips the students with practical writing letter skills. These are generating paragraph elements in isolation, planning a paragraph, and letter writing paragraph of varied modes of development. By the end of the semester, the students are able to develop their ability to write good English correspondence: Business-letter writing inquiry and reply to inquiry letter, complaint, adjustment letter, and other types of business-letter.

Jigsaw is said to be able to increase students' learning since it is less threatening for many students, increases the amount of student participation in the classroom, reduces the need for competitiveness and reduces the teachers' dominance in the classroom (Mengduo, 2010, p.114). Jigsaw technique not only improving the writing achievement, it is motivating students to write and work together, the technique is also helpful in encouraging students to actively participate and easier in writing business letter. Thus, the writer was interested to carry out a research entitled “The Influence of Jigsaw Technique and Writing Motivation on Business Letter Writing Achievement of the Second Semester Students at Economic Faculty Tridinanti University of Palembang”.

The problems of this study concerned the application of Jigsaw Technique toward Business Letter Writing Achievement of the second semester students at Economy Faculty Tridinanti University of Palembang majoring Management. The Writing Motivation focused on high and low category. The writer limited the business letter types to Inquiry and Reply to Inquiry Letter, Complaints, and Adjustment Letter as well.

The result of this research is expected to help the students reduce their problem in writing business letter. It can also help the students to be interested and motivated in learning process, this research can be used as a reference to motivate the students become active students, next for the English teacher, this research might be used as a referent by the teachers as one of alternative ways in teaching writing English in Economy Faculty with enjoyable learning. the Institutions this research may be useful for the school to develop the academic program. It can inspire the curriculum developer to develop curriculum effectively and efficiently. By conducting the research, the writer may gain the knowledge of research that can increase her teaching skills. It is also expected to be a source of information for other researchers who are investigating writing English Business letter and students' motivation through jigsaw technique.

According to Posko (2010, p. 23) writing is a task which involves people in manipulating words in grammatically correct sentences and in linking those sentences to form a piece of continuous writing which successfully communities their thoughts and ideas on a certain topic. According to Brown (2004, p. 244-245), there are five components of writing: 1) organization; introduction, body, and conclusion, 2) logical development of ideas; content, 3) grammar, 4) punctuation, spelling, and mechanics, 5) style and quality of expression.

From definition above the writer can conclude that writing is a way to produce language that comes from out thought. Teaching writing is not only useful in academic area, but also in daily activity in many aspects. People need to master writing skill when they send an e-mail. It means that people have to master writing, and teaching writing is needed to make them master that skill.
According to Pratiwi (2014, p. 10), letter is written messages, request, account of events, etc. sent by one person to another. In business field, many people would like to develop their business, and that is why they are obliged to write messages; this business letter. According to Suyarto and Rachdiana (2009, p. 2) the characteristics of writing business letter are: clear, concise, complete, courteous, correct, clean and careful (7C):

1. Clear (to whom the letter is addressed; from whom it comes; the contents of which are intended; words or sentences, writing or typing.
2. Concise (do not use long sentences or excessive; should be short and decisive, contains all the information needed).
3. Complete (contains all the information needed).
4. Courteous (wise in expressing wishes or opinions and do not belittle others).
5. Correct (right and good in the choice of language and maintain the correct information).
6. Clean (use good paper and clean).
7. Careful (typing must be done carefully).

Motivation is present in every life function, simple acts such as eating are motivated by hunger, education is motivated by desire for knowledge. According to Harmer (2001, p. 51), motivation is some kind of internal drive which pushes someone to do things in order to achieve something. There are two types of motivation:

1. Intrinsic motivation
   Intrinsic motivation refers to motivation that is driven by an interest or enjoyment in the task itself, and exists within the individual rather than relying on any external pressure. Intrinsic motivation has been studied by social and educational psychologists since the early 1970s. Research has found that it is usually associated with high educational achievement and enjoyment by students' evaluation theory. Students are likely to be intrinsically motivated if they:
   - attribute their educational results to factors under their own control (e.g., the effort expended),
   - believe they can be effective agents in reaching desired goals (e.g. The results are not determined by luck),
   - are interested in mastering a topic, rather than just rate-learning to achieve good grades.

2. Extrinsic motivation
   Extrinsic motivation comes from outside of the individual. Common extrinsic motivations are rewards like money and grades, coercion and threat of punishment. Competition is in general extrinsic because it encourages the performer to win and beat others, not to enjoy the intrinsic rewards of the activity. A crowd cheering on the individual and trophies are also extrinsic incentives.

   Jigsaw is one of the most successful models for collaborative writing (Kagan, 1994). It refers to any activity where each member of the group has a part of information and the group has to create the whole jointly from their parts. For writing, such an activity might be breaking the paragraph into its separate sentence, assigning one sentence to each member of the group, and then having the reconstruct the whole paragraph. From the sentence level, activity can move to the paragraph level and so on. This activity, requiring no invention on the part of the student, allow them to focus on collaborative, on listening to each other's point of view, and on reviewing the text in writing.
In this study, the objectives of the research were to find out whether:

1) There was a significant difference in business letter writing achievement between the students taught by using jigsaw technique who had high and low writing motivation.

2) There was a significant difference in business letter writing achievement between the students taught by using conventional technique who had high and low writing motivation.

3) There was an interaction effect of jigsaw technique and writing motivation on the students’ business letter writing achievement.

4) There was a significant difference in business letter writing achievement between the students taught by using jigsaw technique who had high and low writing motivation.

5) There was a significant difference in business letter writing achievement between the students taught by using conventional technique who had high and low writing motivation.

6) There was an interaction effect of jigsaw technique and writing motivation on the students’ business letter writing achievement.

The method used in this research was factorial design. Factorial design was modification of pretest-posttest control group design which permits the investigation of additional independent variables (moderator variable) (Fraenkel, Wallen and hyun, 2011, p. 277). In this design, there would be two groups, the first group as the experimental group who were taught by using jigsaw technique (X1), and the other one as control group who were taught by using conventional technique (X2).

The design was shown as follows:

<table>
<thead>
<tr>
<th>Treatment</th>
<th>R</th>
<th>O1</th>
<th>X1</th>
<th>Y1</th>
<th>O2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>R</td>
<td>O1</td>
<td>X2</td>
<td>Y1</td>
<td>O2</td>
</tr>
<tr>
<td>Treatment</td>
<td>R</td>
<td>O1</td>
<td>X1</td>
<td>Y2</td>
<td>O2</td>
</tr>
<tr>
<td>Control</td>
<td>R</td>
<td>O1</td>
<td>X2</td>
<td>Y1</td>
<td>O2</td>
</tr>
</tbody>
</table>

The symbols were interpreted as follows:

R = Random
O1 = Pre-test
O2 = Post-test
X1 = Treatment (the application of jigsaw technique)
X2 = the application of conventional technique
Y1 = Moderator Variable (high motivation)
Y2 = Moderator Variable (low motivation)

The study was conducted in 10 meetings including pretest and posttest activities to see the effectiveness of Jigsaw technique to develop students' writing achievement on business letter. In the experimental class, the researcher applied jigsaw technique and in the control group, the researcher applied conventional technique. The writer took the students’ writing motivation questionnaire scores, pre-test, and post-test. Post-test scores were compared to determine the effectiveness of the treatment.

Population is all the members of particular group (Fraenkel et al, 2011, p.106), or a group of elements or case whether individuals, objects or events that conform to specific criteria to which we intend to generalize the result of the research. The population of this study was the second semester students of Economic Study Program Tridinanti University of Palembang with a total number of 70 students and the sample is a group in a research study on which information is obtained (Fraenkel et al, 2011, p. 100). Sample is taken to represent a population in a research. The sample in this study
will be taken by simple random sampling. In this study, firstly the writers took four classes which has the same major (Regular A Pagi, Regular A Sore) as the Experimental Group and Control Group. Secondly, the writer gave the questionnaire to four classes and found out the students who had low and high motivation. The writer wrote the students’ names on small pieces of paper and rolled them up. Then the writer took randomly 40 students as experimental group, and 40 students as control group.

A test was used to get the data of the students’ writing achievement. In collecting the data, the writer used two tests, they were pre-test and post-test. The pre-test was given before doing the treatment, and post-test was given after doing the treatment. In designing the written test the writer did the following stages: writing the written test. The content of the test was given based on the material that was given to the students during the treatment, the writer made the writing test which consists of inquiry letter.

In this study, the writer used a questionnaire to obtain some information on the students’ writing motivation. The questionnaire distributed to experimental and control group. The questionnaire consisted of 15 items with 5 points Likert Scale ranging, strongly agree, agree, undecided, disagree, a strongly disagree. The questionnaire would be given before pre-test. Umar (2013, p. 49) states that a questionnaire is a set of question that should be covered by the respondents in order to get the information about identical data, experience attitude, knowledge, and opinion. In this study, the answers to the questions in the questionnaire score as follows: Strongly agree = 5, Agree = 4, Undecided = 3, Disagrees = 2 and Strongly disagree = 1. To analyze business letter writing achievement, the writer used rubric for Business Letter writing: The score of each writing element (organization, content, appearances, and language use) was 25%, with the criteria exemplary = 4, accomplished = 3, developing = 2, and beginning = 1. The maximum score for writing element was 16. For the techniques were applied to analyze the obtained data. They were: (1) the statistical test on measuring normality and homogeneity of the data, (2) Independent sample t-test, (3) two-way ANOVA. All the analysis was measured by using the Statistical Package for Social Science (SPSS).

B. FINDINGS AND INTERPRETATION

a. Findings of the study

The data obtained from the pretest and posttest scores had presented into two groups. The first group present of the pretest score in the experimental group and in the control group. While the second presented with the posttest score in the experimental group and control group. The data of the students on pretest both the experimental group and control group were analyzed to find out the homogeneity of two samples. While, the data of the students on the posttest both the experimental group and control group were analyzed by using the independent t-test formula to find out the significant difference in means between the experimental and in the control group. Then, the data of students about their motivation was used to classify them on the basis of whether they were classified in high motivation or low motivation level.

1. The Results of Pretest in Experimental Class

Based on the result of students' pretest in experimental class, it was showed that the mean score was 70.25, the median score was 69.00, the mode score was 69, the standard deviation score was 4.90290, the standard error of mean score was 0.77522, and range score was 22.

Based on the calculation in the pretest scores of the students' writing achievement in the experimental class, one student (2.5%) got the lowest score, it was 59; four
students (10.0%) got 63; seven students (17.5%) got 66; nine students (22.5%) got 69; seven students (17.5%) got 72; nine students (22.5%) got 75; two students (5.0%) got 78; and one student (2.5%) got the highest score, it was 81.

2. The Results of Posttest in Experimental Class

Based on the result of students' post-test in experimental class, it was showed that the mean score was 78.07, the median score was 78.00, the mode score was 75, the standard deviation score was 5.39890, the standard error of mean score was 0.85364, and range score was 22.

Based on the calculation in the posttest scores of the students' writing achievement in the experimental class, one student (2.5%) got the lowest score, it was 66; two students (5.0%) got 69; four students (10.0%) got 72; ten students (25%) got 75, eight students (20.0%) got 78; five students (12.5%) got 81, seven student (17.5%) got 84; and three students (7.5%) got the highest score, it was 88.

3. The Results of pretest in Control Class

Based on the result of students' pretest in control class, it was showed that the mean score was 69.42, the median score was 69.00, the mode score was 69, the standard deviation score was 4.73875, the standard error of mean score was 0.74926, and range score was 22.

Based on the calculation in the pretest scores of the students' writing achievement in the control class, one student (2.5%) got the lowest score, it was 59; six students (15.0%) got 63; seven students (17.5%) got 66; nine students (22.5%) got 69; eight students (20.0%) got 72; eight students (20.0%) got 75; and one student (2.5%) got the highest score, it was 81.

4. The Results of Posttest in Control Class

Based on the result of students' posttest in control class, it was showed that the mean score was 73.57, the medium score was 73.50, the mode score was 72, the standard deviation score was 4.24196, the standard error of mean score was 0.67071, and range score was 18.

Based on the calculation in the posttest scores of the students' writing achievement in the control class, three student (7.5%) got the lowest score, it was 66; seven students (17.5%) got 69; eleven students (27.5%) got 72; nine students (22.5%) got 75; nine students (22.5%) got 8; and one student (2.5%) got the highest score, it was 84.

5. Students' pretest Scores obtained by High Writing Motivation in Experimental Class

Based on the result of students' pre-test score obtained by high writing motivation in experimental class, it was showed that the mean score was 71.70, the median score was 71.70, the mode score was 72, the standard deviation score was 4.07337, the standard error of mean score was 0.64406, and range score was 18.

Based on the calculation in the pretest scores obtained by high writing motivation in experimental class, two student (5.0%) got the lowest score, it was 63; three students (7.5%) got 66; three students (7.5%) got 69; three students (7.5%) got 72; six students (15.0%) got 75; two students (5.0%) got 78 and one student got the highest score, it was 81.
6. Students' posttest Scores obtained by High Writing Motivation in Experimental Class
   Based on the result of students' post-test score obtained by high writing motivation in experimental class, it was showed that the mean score was 79.65, the median score was 78.00, the mode score was 78, the standard deviation score was 5.16338, the standard error of mean score was 1.15457, and range score was 16.

   Based on the calculation in the posttest scores obtained by high writing motivation in experimental class, two students (5.0%) got the lowest score, it was 72; four students (10.0%) got 75; six students (15.0%) got 78, one student (2.5%) got 81 four students (10.0%) got 84, three students (7.5%) got 88.

7. Students’ pretest Scores obtained by High Writing Motivation in Control Class
   Based on the result of students' pretest score obtained by High writing motivation in control class, it was showed that the mean score was 70.50, the median score was 70.50, the mode score was 72, the standard deviation score was 4.18644, the standard error of mean score was 0.93612, and range score was 18.

   Based on the calculation in the pretest scores obtained by high writing motivation in control class, one student (2.5%) got the lowest score, it was 63; four students (10.0%) got 66; five students (12.5%) got 69; six students (15.0%) got 72; three students (7.5%) got 75; one student (2.5%) got the highest score, it was 81.

8. Students' Posttest Scores obtained by High Writing Motivation in Control Class
   Based on the result of students' post-test score obtained by High writing motivation in control class, it was showed that the mean score was 74.55, the median score was 75.00, the mode score was 75, the standard deviation score was 4.04547, the standard error of mean score was 0.90459, and range score was 18.

   Based on the calculation in the posttest scores obtained by high writing motivation in control class, one student (2.5%) got the lowest score, it was 66; one student (2.5%) got 69; six students (15.0%) got 72; seven students (17.5%) got 75, three students (7.5%) got 78; one student (2.5%) got 81; and one student got the highest score, it was 84.

9. Students' pretest Scores obtained by Low Writing Motivation in Experimental Class
   Based on the result of students' pretest score obtained by Low writing motivation in experimental class, it was showed that the mean score was 68.80, the median score was 69.00, the mode score was 69, the standard deviation score was 4.29933, the standard error of mean score was 0.96136, and range score was 16.

   Based on the calculation in the pretest scores obtained by low writing motivation in experimental class, one student (2.5%) got the lowest score, it was 59; two students (5.0%) got 63; four students (10.0%) got 66; six students (15.0%) got 69; four students (10%) got 72; thee students (7.5%) got the highest score, it was 75.

10. Students' posttest Scores obtained by Low Writing Motivation in Experimental Class
    Based on the result of students' post-test score obtained by Low writing motivation in experimental class, it was showed that the mean score was 76.50, the median score was 75.00, the mode score was 75, the standard deviation score was 5.28653, the standard error of mean score was 1.18210, and range score was 18.
Based on the calculation in the posttest scores obtained by low writing motivation in experimental class, one student (2.5%) got the lowest score, it was 66; two students (5.0%) got 69; two students (5.0%) got 72; six students (15.0%) got 75; two students (5.0%) got 78; four students (10.0%) got 81; and three students (7.5%) got the highest score, it was 84.

11. Students' pretest Scores obtained by Low Writing Motivation in Control Class

Based on the result of students' pretest score obtained by Low Writing motivation in control class, it was showed that the mean score was 68.35, the median score was 69.00, the mode score was 63, the standard deviation score was 5.11216, the standard error of mean score was 1.14311, and range score was 16.

Based on the calculation in the pretest scores obtained by low writing motivation in control class, one student (2.5%) got the lowest score, it was 59; five students (12.5%) got 63; three students (7.5%) got 66; four students (10.0%) got 69; two students (5.0%) got 72; five students (12.5%) got the highest score, it was 75.

12. Students' posttest Scores obtained by Low Writing Motivation in Control Class

Based on the result of students' posttest score obtained by Low writing motivation in control class, it was showed that the mean score was 72.60, the median score was 72.00, the mode score was 69, the standard deviation score was 4.30911 the standard error of mean score was 0.96355, and range score was 12.

Based on the calculation in the posttest scores obtained by low writing motivation in control class, two students (5.0%) got the lowest score, it was 66; six students (15%) got 69; four students (10%) got 72; two students (5.0%) got 75; six students (15%) got 78.

13. Students' Writing Motivation in Experimental Class

Based on the result of the questionnaire in experimental class, the writer took twenty students who were categorized into high writing motivation, and twenty students who were categorized into low writing motivation.

14. Students' Writing Motivation in Control Class

Based on the result of the questionnaire in control class, the writer took twenty students who were categorized into high writing motivation, and twenty students who were categorized into low writing motivation.

b. Data Analyses

1. Statistical Analyses on Measuring Normality of the Data

The goal of normality measurement was to find out whether or not the data in this research was taken from the same population (the distribution of population data) was normal. The distribution of the data can be classified into normal if the sig (2-tailed) was higher than significant level 0.05.

The normality test was done to: (1) the students' high writing motivation, pretest and post-test scores in control class, (2) the students' low writing motivation, pretest and post-test scores in control class, (3) the students' high writing motivation, pretest and post-test scores in experimental class, and (4) the students' low writing motivation, pretest and post-test scores in experimental class.
1.1 The Students' High Writing Motivation, pretest and Post-test Scores in Control Class
From the calculation one-Sample Kolmogorov-Smirnov Test, it was showed that students' high writing motivation, pretest and posttest in control class were 0.685, 0.366 and 0.339. It is concluded that all scores of the students' were categorized into normal since the sig (2-tailed) is higher than significant level 0.05.

1.2 The Students' Low Writing Motivation, pretest and Post-test Scores in Control Class
From the calculation one-Sample Kolmogorov-Smirnov Test, it was showed that students' low writing motivation, pretest and posttest in control class were 0.735, 0.411 and 0.197. It is concluded that all scores of the students' were categorized into normal since the sig (2-tailed) is higher than significant level 0.05.

1.3 The Students' High Writing Motivation, pretest and Post-test Scores in Experimental Class
From the calculation one-Sample Kolmogorov-Smirnov Test, it was showed that students' high writing motivation, pretest and posttest in experimental class were 0.469, 0.262 and 0.791. It is concluded that all scores of the students' were categorized into normal since the sig (2-tailed) is higher than significant level 0.05.

1.4. The Students' Low Writing Motivation, pretest and Post-test Scores in Experimental Class
From the calculation one-Sample Kolmogorov-Smirnov Test, it was showed that students' low writing motivation, pretest and posttest in experimental class were 0.621, 0.672 and 0.821. It is concluded that all scores of the students' were categorized into normal since the sig (2-tailed) is higher than significant level 0.05.

2. Homogeneity Test
Levene Statistical SPSS 23 was used to determine the samples which were homogenous or not. The samples are determine homogenous since the sig (2-tailed) is higher than the significant level 0.05. Homogeneity test was carried out to:

2.1. Students' Posttest Scores in the Control and Experimental Groups
The calculation of Levene statistical by using SPSS 23 showed that sig (2-tailed) was 0.220. It was concluded that the posttest scores of the students in the control and experimental groups considered homogenous since sig (2-tailed) was higher than significant level 0.05.

2.2 The Posttest Score of the Students who had High Motivation taught by using Jigsaw Technique and Conventional Technique
The calculation of Levene statistical by using SPSS 23 showed that sig (2-tailed) was 0.052. It was concluded that the posttest scores of the students who had high writing motivation after being taught by using jigsaw technique and conventional technique considered homogenous since sig (2-tailed) was higher than significant level 0.05.

2.3. The Posttest Score of the Students who had Low writing Motivation taught by using Jigsaw Technique and Conventional Technique
The calculation of Levene statistical by using SPSS 23 showed that sig (2-tailed) was 0.422. It was concluded that the posttest scores of the students who had low writing motivation after being taught by using jigsaw technique and conventional technique considered homogenous since sig (2-tailed) was higher than significant level 0.05.

2.4. The Posttest Score of the Students who had High and Low writing Motivation taught by using Jigsaw Technique
The calculation of Levene statistical by using SPSS 23 showed that sig (2-tailed) was 0.972. It was concluded that the posttest scores of the students who had high and low writing motivation after being taught by using jigsaw technique considered homogenous since sig (2-tailed) was higher than significant level 0.05.

2.5. The Posttest Score of the Students who had High and Low Motivation taught by using Conventional Technique
The calculation of Levene statistical by using SPSS 23 showed that sig (2-tailed) was 0.305. It was concluded that the posttest scores of the students who had high and low writing motivation after being taught by using jigsaw technique considered homogenous since sig (2-tailed) was higher than significant level 0.05.

3. The Result of the Independent t-test
The writer used independent sample t-test to analyze the difference in means between two groups. This research t-test was applied to:

3.1. Measure significant difference in writing business letter achievement between the students who were taught by using jigsaw technique and those who were taught by using conventional technique
The calculation of the t-test analysis showed that the mean of the students' posttest scores in the experimental group was 78.0750, standard deviation was 5.39890 and standard error mean was 0.85364. Meanwhile, the mean of the students' posttest scores in the control group was 73.5750, standard deviation was 4.24196 and standard error mean was 0.67071.

The statistics calculation by using independent t-test showed that sig (2-tailed) of students' posttest scores in the experimental and control groups was 0.000 since the sig (2-tailed) was lower than the significant level 0.05, it can be predicted that there was a significant difference in writing business letter achievement between the students who were taught by using jigsaw technique and those who were taught by using conventional technique.

3.2. Measuring Significant Difference in Writing Business Letter Achievement between the Students who had high writing motivation taught by using Jigsaw Technique and those who were taught by using Conventional Technique
The calculation of the t-test analysis showed that the mean of the students' scores who had high writing motivation taught by using jigsaw technique was 79.65, standard deviation was 5.16338 and standard error mean was 1.15457. Meanwhile, the mean of the students' scores who had high writing motivation taught by using jigsaw technique was 74.55, standard deviation was 4.04547 and standard error mean was 0.90459.

The statistics calculation by using independent t-test showed that sig (2-tailed) was 0.001 since the sig (2-tailed) was lower than the significant level 0.05, it can be predicted that there was a significant difference in writing business letter achievement...
between the students who had high writing motivation taught by using jigsaw technique and those who were taught by using conventional technique and those who were taught by using conventional technique.

3.3. Measuring Significant Difference in Writing Business Letter Achievement between the Students who had low writing motivation taught by using Jigsaw Technique and those who were taught by using Conventional Technique

The calculation of the t-test analysis showed that the mean of the students' scores who had low writing motivation taught by using jigsaw technique was 76.20, standard deviation was 5.00105 and standard error mean was 1.11827. Meanwhile, the mean of the students' scores who had low writing motivation taught by using conventional technique was 72.60, standard deviation was 4.30911 and standard error mean was 0.96355.

The statistics calculation by using independent t-test showed that sig (2-tailed) was 0.015 since the sig (2-tailed) was lower than the significant level 0.05, it can be predicted that there was a significant difference in writing business letter achievement between the students who had low writing motivation taught by using jigsaw technique and those who were taught by using conventional technique and those who were taught by using conventional technique.

3.4. Measuring Significant Difference in Writing Achievement who had high and Low Writing Motivation taught by using Jigsaw Technique

The calculation of the t-test analysis showed that the mean of the students who had high writing motivation taught by using jigsaw technique was 79.65, standard deviation was 5.16338, and standard error was 1.15457. Meanwhile, the mean score of the students who had low writing motivation taught by using jigsaw technique was 76.50, standard deviation was 5.28653, and standard error was 1.18210.

The statistics calculation by using independent t-test showed that sig (2-tailed) was 0.064 since the sig (2-tailed) was higher than the significant level 0.05, it can be predicted that there was no significant difference in writing business letter achievement between the students who had high and low writing motivation taught by using jigsaw technique.

3.5. Measuring Significant Difference in Writing Business Letter Achievement between the Students who had high and low Writing motivation taught by using Conventional Technique

The calculation of the t-test analysis showed that the mean of the students' scores who had high writing motivation taught by using conventional technique was 74.55, standard deviation was 4.04547 and standard error mean was 0.90459. Meanwhile, the mean of the students' scores who had low writing motivation taught by using conventional technique was 72.60, standard deviation was 4.30911 and standard error mean was 0.96355.

The statistics calculation by using independent t-test showed that sig (2-tailed) was 0.148 since the sig (2-tailed) was higher than the significant level 0.05, it can be predicted that there was no significant difference in writing business letter achievement between the students who had low writing motivation taught by using jigsaw technique and those who were taught by using conventional technique and those who were taught by using conventional technique.
4. Measuring Interaction Effect of Method used and Students’ Writing Motivation in Writing Business Letter Achievement

The writer used two-way ANOVA to found out the interaction effect of independent variable (jigsaw technique), moderator variable (writing motivation) on dependent variable (writing business letter achievement). The descriptive statistics analysis showed that the mean score of students who had high writing motivation taught by using jigsaw technique was 79.65, standard deviation was 5.16338, the mean score of students who had high writing motivation taught by using conventional technique was 74.55, and standard deviation was 4.04547. Meanwhile the mean score of students who had low writing motivation taught by using jigsaw technique was 76.50, standard deviation was 5.28653, the mean score of Students who had low writing motivation taught by using conventional technique was 72.60, and standard deviation was 4.30911.

The calculation analysis showed that sig (2-tailed) was 0.572. It was higher than the significant level 0.05. It meant that there was not interaction effect found between students' writing achievement using jigsaw technique and their writing motivation.

c. Interpretation of the Study

Based on the findings above, the interpretations are presented. They are as follows.

First, the calculation of statistics by using independent sample t-test showed that the sig (2-tailed) was 0.000. Since the sig (2-tailed) was lower than the significant level 0.05, it could be predicted that there was a significant difference in writing achievement between the students who were taught by using jigsaw technique and those who were taught by using conventional technique. The mean posttest score of the students' posttest in the experimental group was 78.0750 and the mean score of the students' posttest in the control group was 73.5750. It meant that the mean posttest score of students in the experimental group was higher than the mean posttest score in the control group. It could be concluded that the students who were taught by using jigsaw technique were better than the students who were taught by using conventional technique.

Second, the calculation of statistics by using independent sample t-test showed that sig (2-tailed) was 0.001. Since the sig (2-tailed) was lower than the significant level 0.05. It can be predicted that there was a significant difference in writing business letter achievement between the students who had high writing motivation taught by using jigsaw and conventional technique.

Third, the calculation of statistics by using independent sample t-test showed that sig (2-tailed) was 0.015, since the sig (2-tailed) was lower than the significant level 0.05. It can be predicted that there was a significant difference in writing business letter achievement between the students who had low writing motivation taught by using jigsaw and conventional technique.

Forth, the calculation of statistics by using independent sample t-test showed that sig (2-tailed) was 0.064. Since the sig (2-tailed) was higher than the significant level 0.05. It could be predicted that there was no significant difference in writing business letter achievement between the students who had high and low writing motivation taught by using jigsaw technique.

Fifth, the calculation of statistics by using independent sample t-test showed that sig (2-tailed) was 0.148. Since the sig (2-tailed) was higher than the significant level 0.05. It can be predicted that there was no significant difference in writing business letter achievement between the students who had high and low writing motivation taught by using conventional technique.
Last, the calculation of analysis by using two-way ANOVA of measuring an interaction effects between the teaching writing business letter through jigsaw technique and students' writing motivation was 0.572. It was lower than significant level 0.05. It could be concluded that there was no interaction effect between jigsaw technique and writing motivation in writing business letter achievement. However the students had high or low writing motivation, they would be easier to increase their writing achievement by using jigsaw technique.

III. CONCLUSIONS

This part is divided into six points; all of them deal with calculation of statistics. The detailed elaboration is as follows:

1) The calculation of statistics by using independent sample t-test showed that the sig (2-tailed) was 0.000. Since the sig (2-tailed) was lower than the significant level 0.05, it could be predicted that there was a significant difference in writing achievement between the students who were taught by using jigsaw technique and those who were taught by using conventional technique. The mean posttest score of the students' posttest in the experimental group was 78.0750 and the mean score of the students' posttest in the control group was 73.5750. It meant that the mean posttest score of students in the experimental group was higher than the mean posttest score in the control group. It could be concluded that the students who were taught by using jigsaw technique were better than the students who were taught by using conventional technique. It meant that the alternative hypothesis was accepted and the null hypothesis was rejected.

2) The calculation of statistics by using independent sample t-test showed that sig (2-tailed) was 0.001. Since the sig (2-tailed) was lower than the significant level 0.05. It could be predicted that there was a significant difference in writing business letter achievement between the students who had high writing motivation taught by using jigsaw technique and those who were taught by using conventional technique. It could be concluded that the techniques which applied to develop students' writing achievement was effective in both groups of students who had high writing motivation. It meant that the alternative hypothesis was accepted and the null hypothesis was rejected.

3) The calculation of statistics by using independent sample t-test showed that sig (2-tailed) was 0.015. Since the sig (2-tailed) was lower than the significant level 0.05. It can be predicted that there was any significant difference in writing business letter achievement between the students who had low writing motivation taught by using jigsaw technique and those who were taught by using conventional technique. It meant that the alternative hypothesis was accepted and the null hypothesis was rejected.

4) The calculation of statistics by using independent sample t-test showed that sig (2-tailed) was 0.064. Since the sig (2-tailed) was lower than the significant level 0.05. It can be predicted that there was no significant difference in writing business letter achievement between the students who had high and low writing motivation taught by using jigsaw technique. It meant that the alternative hypothesis was accepted and the null hypothesis was rejected.

5) The calculation of statistics by using independent sample t-test showed that sig (2-tailed) was 0.148. Since the sig (2-tailed) was higher than the significant level 0.05. It can be predicted that there was no significant difference in writing business letter achievement between the students who had high and low writing motivation taught by using jigsaw technique.
by using jigsaw technique. It meant that the alternative hypothesis was rejected and the null hypothesis was accepted.

6) The calculation of analysis by using two-way ANOVA of measuring an interaction effects between the teaching writing business letter through jigsaw technique and students' writing motivation was 0.572. It was higher than significant level 0.05. Could be concluded that there was no interaction effect between jigsaw technique and writing motivation in writing business letter achievement it meant that the alternative hypothesis was rejected and the null hypothesis was accepted.

REFERENCES

------------------


