

THE EFFECT OF USING JIGSAW METHOD ON THE TENTH GRADE STUDENTS' LISTENING COMPREHENSION ACHIEVEMENT AT SMAN 2 JEMBER IN THE 2013/2014 ACADEMIC YEAR

Fajar Satria Pambudi, Wiwiek Eko Bindarti, I Putu Sukmaantara
English Language Education Study Program
The Faculty of Teacher Training and Education
Jember University
Jln. Kalimantan 37, Jember 68121
E-mail: fajarsatriapambudi@gmail.com

Abstract

Jigsaw is one kind of teaching method that can be used in teaching learning process. In this research, the researcher investigated whether or not there was a significant effect on the use of jigsaw method on the students' listening comprehension achievement at SMAN 2 Jember by conducting a quasi experimental research. The research respondents were the tenth grade students of SMAN 2 Jember. Based on the results of the independent sample t-test analysis, it was known that the value of Sig.(2-tailed) was 0.000 which was lower than 0.05. Therefore, the alternative hypothesis was accepted. Therefore, it can be concluded that the use of jigsaw method had a significant effect on students' listening comprehension achievement at SMAN 2 Jember.

Key Words: jigsaw, listening comprehension, quasi experimental research

Introduction

English as an international language which is used for communication in most fields and activities all over the world has been taught as a foreign language in Indonesia and is considered as one of the compulsory subjects in any level of education, from junior high school to university levels.

There are four language skills that must be taught in teaching English: *listening, speaking, reading, and writing*. Dealing with the four language skills above, listening is one of the skills which plays an important role in language teaching because it is the most frequently used language skill in daily communication. It is reasonable to assume that the students would learn to understand a language as the students learn to speak it (Brown and Yule, 1984:54).

However, in the context of foreign language teaching in Indonesia, some problems still frequently appear, such as lack of instruments or devices for teaching listening, the lack of materials, besides most teachers usually teach their students by reading the script instead of using real native speaker's voice or recorded materials from native speaker. This condition brings a lot of problems for

students in comprehending the spoken materials because the teachers' pronunciation may not be as accurate as the real native speakers' voice, so that the students are not accustomed to hearing or listening to the real native speaker's voice as they usually listen to the national examination on the listening section.

Since listening can provide the main input and data that the learners receive in language learning (Richards, 2008:1), the failure of comprehending spoken materials may affect the achievement of other language skills such as writing, speaking, and reading. The achievement of the other language skills depends on how well the students comprehend the input from the spoken materials given by the teacher.

In order to minimize the failure of the students in comprehending spoken materials, it is necessary for the teacher to choose or create interesting and appropriate method or technique. Cooperative learning is considered to be able to give chance to the students to get involved in discussion, has courage and critical thinking, and has a will to take their responsibility of their own learning. According to Isjoni (2007:16), cooperative learning is a learning model that is used to create a teaching learning process with the students as the centre of the process or the so

called student oriented learning activity. According to Kohonen (1992:35), Cooperative learning provides five beneficial characteristics to the students. The first is *positive interdependence*. It refers to the students' sense of togetherness in working together for a common goal. The second is *individual accountability*. Every member feels in charge of their own and their team mates. The third is *abundant verbal in face to face interaction*. All group members explain, collaborate, and link information that has been learned previously. The fourth is *social skill*. It involves an explicit teaching of appropriate leadership, communication, trust and conflict resolution skills. The last is *team reflection*, where the team periodically assesses what they have learned.

Jigsaw as one of the appropriate methods in cooperative learning is one of the appropriate methods that can be applied in teaching listening besides teaching reading. Jigsaw was originally developed by Elliot Aronson in 1978. It has been adapted by a large number of teachers at any level in a variety of ways. Jigsaw method was chosen to help the students in understanding spoken materials as the use of jigsaw method can be beneficial for the students. Tewksbury (2008) at <http://serc.carleton.edu> states that jigsaw provides some benefits as follows. 1) students have the opportunity to teach themselves 2) each student has practiced in self-teaching 3) students have a practice in peer teaching 4) students become more fluent in using both the speaking skill and listening skill as they use both skills in the discussion 5) each student has a chance to contribute meaningfully to a discussion, something that is difficult to achieve in a large group discussion

Considering the ideas above, a research entitled *The effect of using jigsaw method on the tenth grade students' listening comprehension achievement at SMAN 2 Jember in the 2013/2014 academic year* was conducted. The objective of this research was to know whether there was or not a significant effect of using jigsaw method on the tenth grade students' listening comprehension achievement at SMAN 2 Jember. Based on the research problem, the research hypothesis can be formulated as follows. Is there any significant effect of using jigsaw method on the tenth grade students' listening comprehension achievement at SMAN 2 Jember.

Research Method

The research design applied in this research was a quasi-experimental research design using post test only control group design. There were two groups in this research. They were experimental group and control group. According to Fraenkel and Wallen (2008:262), experimental group receives a treatment of some sorts such as a new textbook, or a different method of teaching, while the control group receives no treatment. In this research,

the experimental group received treatment on their listening class that was using jigsaw as the teaching method. On the other side, the control group received no special treatment, which was teaching listening comprehension using lecturing and question-answer method.

The population of this research was the tenth grade students of SMAN 2 Jember. From the existing 8 classes, the researcher took two classes as the research respondents. To know the homogeneity of the population, the researcher analyzed the students' English previous scores by using ANOVA. The result of ANOVA was used to determine the experimental and the control groups. Based on the result of ANOVA, it was known that the condition of the population was not homogeneous. Therefore, the researcher took two classes which had the same mean score. After determining the research respondents, the researcher constructed the lesson plan and the research instrument. The researcher gave the teaching learning process twice for both the experimental and the control group. Post test was given to both groups after the teaching learning process. The result of the post test was analyzed by using independent sample t-test to know whether or not there was a significant effect of using jigsaw method on the students' listening comprehension achievement.

There were two kinds of data in this research. The first was the primary data; the second one was the supporting data. The primary data in this research were the students' listening comprehension scores collected from a listening test. The supporting data were gained by interviewing the English teacher of SMAN 2 Jember and from documentation.

In this research, the researcher used a teacher-made test. The test used was in the form of multiple choice with four options. According to Hughes (1997:76), multiple choice has some advantages, they are: the scoring is rapid, economical, and the candidates only have to mark the options on the paper. The test applied in this research was a teacher-made-test in the form of true-false for 10 items, and multiple choice for 10 items which covered problems of finding general and specific information with the materials taken from <http://www.speakaboos.com>. In relation to the scoring, there were 10 items of true false question having 4 values for each item, and 10 items of multiple choice questions having 6 values for each question, so the total score was 100.

Semistructured interview was used in this research by using a guide of questions to lead further questions relevant to the data needed to get the supporting data about the teaching method used by the English teacher in teaching listening comprehension. The interviewee was the tenth grade English teacher of SMA Negeri 2 Jember.

In this research, documentation was used to get data such as the names of the research respondents, and the

tenth grade students' scores of English. The data were gathered from the English teacher of SMAN 2 Jember., that is, from the students' semester examination score given by the English teacher.

Before giving the post test, the researcher determined the validity and the reliability of the test. In determining the validity, the researcher constructed the test items based on syllabus used in the school. It is stated that the tenth grade students should be able to comprehend a text in the form of narrative text. Concerning the reliability, the researcher applied Split Half Odd-Even technique to estimate the reliability by analyzing the correlation between X and Y by using product moment correlation formula. From the calculation it was known that the result of Split Half Odd-Even technique was 0.5. after knowing the result of Split Half Odd-Even technique, the calculation was continued to determine the reliability coefficient of the whole test items by using Spearman-Brown formula:

The result of Spearman-Brown was 0.667. According to Djwandono (1996:154) the result of the reliability coefficient has different categories as follows

- 0.90-1.00= very high
- 0.70-0.89= high
- 0.50-0.69= fair
- 0.30-0.49= low
- <0.30= very low

Therefore, the reliability coefficient of the test items used in this research was considered to be fair.

The difficulty index of the test shows how difficult the particular item in the test. The formula is as follows:

$$P = B/J$$

notes:

P : difficulty index

B : the number of participants who answer the questions correctly

J : the total number of the participants who answer the question

(Djiwandono, 1996:141)

The criteria of difficulty index

- 0.00-0.30=difficult
- 0.31-0.70=fair
- 0.71-1.00=easy

the result of the difficulty index analysis showed that the difficulty index of the test items used in this research were in the range of 0.32-0.68. According to Sudijono (1996:213) it is considered to be fair.

In order to know the reliability, the difficulty index, and the time needed for doing the test, the researcher administered a tryout test which was given to the class that was not considered as the experimental nor the control group. The try out test was given before giving post test to both the experimental and the control group.

The Results of the Research

Based on the result of the ANOVA, it was known that the condition of the population was not homogeneous. Therefore, the researcher took two classes which had the same mean score. It was known that the classes which had the same mean score were class X Science 6 and X Science 7, that is 86.94. The students of class X Science 6 were chosen as the experimental group, and the students of X Science 7 were chosen as the control group decided by lottery.

To know how easy or difficult the test items were, the researcher determined the Difficulty Index (*FI*) of the test items. According to (1996:372) a good test item should not be too easy or too difficult. It means that the test item should be in the range between 0.31-0.70. The researcher provided 20 number of test items. After analyzing the result of the try out, it was found that those test items were in the range between 0.32-0.68.

The try out test was also intended to know whether the test instruction was clear or not and the time allocation was enough or not. Dealing with the test instruction, the test instruction was understandable as all the students understood the test instruction well. Dealing with the time, the researcher found that the time allocation for the try out was appropriate because the students were able to do all the test items within the available time. From the clarification above, it could be concluded that the test for the post test administered to the participants was the same as that of the try out.

The result of the Independent Sample t-test showed that the value of Sig.(2-tailed) was 0.000. It was lower than 0.05. So that, it can be concluded that the use of jigsaw method had a significant effect on the students' listening comprehension achievement at SMAN 2 Jember in the 2013/2014 academic year.

Discussion

The result of this research showed that the use of jigsaw method had a significant effect on the tenth grade students' listening comprehension achievement at SMAN 2 Jember in the 2013/2014 academic year.

The research finding was in line with what Tewksbury (2008:2) states that Jigsaw is one of the cooperative learning models which can help the students to comprehend the materials better. Furthermore, he states that Jigsaw encourages cooperation and active learning and each member of the group has contribution to the group. Moreover, Arnold (1999:230) states that jigsaw can be used to divide the task for reading or listening to a text among members of a group. As one of cooperative learning methods, jigsaw is useful and effective in teaching reading or listening because it can help the students to learn the material and motivate the students to involve in the classroom activities. So it can increase the students' reading or listening comprehension achievement.

In addition, this present research finding supported by Kazemi's research result (2012) who investigated the efficiency of Jigsaw method of teaching intermediate learners of English. The result of her research showed that the use of jigsaw as an instructional teaching method resulted better scores in the posttest than that in pretest with regard to the students' reading achievement.

Further, Zakiyah (2010) who did a classroom action research at MA Darussalam Jember reported that Cooperative learning by using jigsaw method could improve the students' ability in comprehending the text. It was shown by the percentage of the students who got score >60 increased from 63.13% (12 students) to 78.95% (15 students). Another research conducted by Sujatmiati (2010) also reported that the use of jigsaw had a positive effect to the students' listening comprehension achievement at SMAN 1 Lumajang. Therefore, the result of this research strengthens the result of the previous researches and also the theory about the use of jigsaw method for teaching listening comprehension achievement. In conclusion, it can be said that jigsaw is an appropriate and effective method to teach English to the students, especially listening comprehension.

Although the result of this research showed that jigsaw is effective and had a significant effect on the students' learning, the following problem needs to be taken consideration by the future researchers dealing with the application of jigsaw method in this research. The researcher faced some obstacles in conducting this present research. The first was the lack of master control in the school laboratory. Master control is a device that can be used by the teacher to control the playing of recorded material for the students. To overcome this problem, the researcher was assisted by five people to help the researcher control the playing of the recorded material. So that, each expert group only had access to their specific materials. However, the availability of master control is important to teach listening comprehension using jigsaw in order to make the method run smoothly.

The second problem was that the students were not accustomed to using jigsaw method on their learning. In the

first meeting, the application of jigsaw could not run smoothly. The students took too much time to go back to their home group after developing the expertise in the expert group.

The third problem was that some high achiever students did not want to be gathered with the low achiever students. The high achiever students did not feel comfortable with the low achiever students. To overcome this problem, the researcher explained to the students about the rule in calculating the group achievement scores so that the low achiever students may have a chance to give bigger contribution to the group than the high achiever students since the group achievement scores are based on the improvement score from the base score.

In brief, for successful implementation of jigsaw method especially for teaching listening comprehension, the teacher has to prepare the whole needs of jigsaw, such as the master control and the headphones for all the students. The teacher should also make sure that the students have a clear understanding of each step of the jigsaw method. Finally, the teacher has to allow time for the students to appreciate the concept of learning together.

Based on the explanation, it can be concluded that the use of jigsaw method in teaching English especially teaching listening comprehension is able to increase students' listening comprehension achievement. The evidence was teaching listening comprehension by using jigsaw method had a significant effect on listening comprehension achievement among the tenth grade students at SMAN 2 Jember.

Conclusion and Suggestion

Based on the data analysis of post test result, hypothesis verification, and discussion, it can be concluded that there was a significant effect of using jigsaw method on the tenth grade students' listening comprehension achievement at SMAN 2 Jember in the 2013/2014 academic year.

Due to the fact that there was a significant effect of using jigsaw method in teaching listening comprehension, this method can be used as a consideration in teaching learning process to improve the students' ability in mastering listening skill. Therefore, it is suggested to the English teachers to use jigsaw as the method in teaching listening comprehension or another receptive skill like reading comprehension. Due to the fact that jigsaw method is an effective method to make the students comprehend the material better. The results of his research are expected to be useful for future researchers as a reference or information in conducting the same study for future researchers by using different research design such as a classroom action research to improve the students' listening comprehension by using jigsaw method or using the same design, that is, an experimental study to find the effect of

using jigsaw method on the students' reading comprehension achievement.

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