THE USE OF JIGSAW II TECHNIQUE AND STILL PICTURES COMBINATION TO IMPROVE STUDENTS’ VOCABULARY MASTERY

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Abstract

This article is about the use of Jigsaw II technique and Still Pictures combination to improve students’ vocabulary mastery. In order to achieve the objectives of this research, the writer adopted an action research design. The subject of this research was class 7B of SMP N 12 Magelang, in the academic year of 2012/2013 which consisted of 32 students. There were two cycles in this research, and there were four phases in each cycle. They were planning, action, observation, and reflection. In order to collect data about students’ vocabulary mastery improvement and responses toward the use of this technique and media, the writer used observation sheet, questionnaire, interview, and test. The result of this study showed that the combination of Jigsaw II technique and Still Pictures can improve students’ vocabulary mastery. Besides, the result of the observation sheet, questionnaire and interview revealed that the students gave very positive responses toward the use of this technique and media. Based on the result of this research, the writer concluded that the use of Jigsaw II technique and Still Pictures gave a good contribution in English teaching and learning, especially in the area of vocabulary learning.
INTRODUCTION

Learning English means learning four language skills and its components. The language skills are listening, speaking, reading, and writing, and the language components are grammar, vocabulary, and sound system. In learning all language skills and other language components, vocabulary takes important roles since it always takes part. Mehta (2009) states that “vocabulary is the first and foremost important step in language acquisition.” It means that in learning foreign languages, students usually learn vocabulary first before they master more complex structure.

The next roles of vocabulary are it brings meanings of what we think and want to say, and it is important for students to build academic journey. By using series of vocabulary, we can communicate with others and convey our meaning. John Dewey (1910) in Bintz (2011) states that “vocabulary is critically important because a word is an instrument for thinking about the meanings which it expresses.” In addition, Bowman (2006) in Ababneh (2013) suggests that “vocabulary is integrated into every content area and is addressed as part of the curriculum which means that the use of vocabulary is part of reading, writing as well as establishing the foundation of effective communication.” Besides important for communicating, having high vocabulary mastery is also very important for people to obtain academic achievement. According to Coles (2010), learning vocabulary builds children's literacy skills and prepares them for their academic journey. A child with high vocabulary mastery will be better able to follow instructions from an adult or teacher, be more confident in expressing themselves, and will possess the ability to communicate more effectively in a conversational setting.

In fact, there are a lot of students who have low vocabulary mastery as proven from the following evidences. First, according to Tschirmer (2004), a study conducted by Nurweni and Read in 1999 with a large sample of first year students at one Indonesian university found that their average English vocabulary knowledge consisted of 1126 words and that very few students came close to the threshold of 3000-5000 words. In addition to the evidence of the problem mentioned above, the writer also met this condition herself. During her observation and teaching training in one junior high school in Magelang, the writer found that many students possessed low vocabulary mastery and memorization. Although the students had been taught particular vocabulary many times, they were likely to forget it and failed to perform the vocabulary they were expected to know.

The phenomena of students’ low vocabulary mastery and memorization might be caused by several factors. First, a lot of teachers use poor or monotonous teaching method which cannot challenge students to learn vocabulary. As a result, students will not be interested in learning vocabulary and will easily get bored in teaching and learning process. Second, the absence of media used in teaching vocabulary makes students’ consciousness and motivation to learn vocabulary low. Third, unsupportive classroom atmosphere makes vocabulary teaching and learning process cannot run optimally. It may be caused by teachers' failure to manage his or her students. Naturally, every student has his or her own characteristic which is different from others. There are students with high or low intelligence and ability, students with high or low learning motivation, students who are active or passive, etc. A teacher should not generalize his or her students’ characteristics. If a teacher fails to manage these diversities during his or her teaching, supportive classroom atmosphere cannot be reached.

In order to solve the problems mentioned above, we need to find strategy which can manage students’ characteristics diversity and which is interesting to motivate students to learn vocabulary all at once. One strategy that can be used to solve this problem is by applying cooperative learning method and using media. There are many researches and theories prove that teaching using cooperative learning method
and media is very beneficial. According to Slavin (1995:3), “cooperative learning can help make diversity a resource rather than a problem.” It means that cooperative learning method helps teachers and students build supportive classroom atmosphere although there are many differences in students’ ability and characters. It is because cooperative learning method facilitates students not only to pay attention to teacher’s explanation as in classical learning, but also encourages them to learn more actively by keeping their attention to work cooperatively in teams, so there will not be any students who are busy with their own business and disturb other. Besides, “in cooperative classrooms students are expected to help each other, to discuss and argue with each other, to assess each other’s current knowledge and fill in gaps in each other’s understanding” (Slavin 1995:2). Meanwhile, Murcia (2001:461) states that “media are tools or physical things used by the teacher to motivate the students by bringing a slice of real life into the classroom and by presenting language in its more complete communication complex.” Thus, combining cooperative learning and media would be very a good strategy to teach vocabulary to students. Learning vocabulary through cooperative learning and media is interesting and learning vocabulary in an interesting way will be very effective because students will learn happily and enthusiastically. As a result, they will remember the vocabulary better.

There are many cooperative learning techniques and media to teach vocabulary. Among them, the writer chose to use Jigsaw II technique and Still Pictures. Learning vocabulary using Jigsaw II technique helps students learn vocabulary better since they need to understand particular vocabulary well in order to be able to explain or describe it to their groups. In addition, Still Pictures can catch students’ attention and increase their motivation to learn vocabulary. Moreover, they help students to understand difficult vocabulary in English because by seeing the picture of a particular word, they will easily discover its meaning in their native language and memorize it better than without any illustration at all.

REVIEW OF RELATED LITERATURE

Teaching and Learning Vocabulary

According to Neuman and Dawyer (2009) in Bintz (2011), vocabulary can be defined as “the words we must know to communicate effectively: words in speaking (expressive vocabulary) and words in listening (receptive vocabulary).” While according to Linse (2006:121), “vocabulary is the collection of words that an individual knows.” Learning vocabulary is important as a part of learning English or other foreign languages since learners learn vocabulary first before they master more complex structure. Richard and Renandya (2002:255) suggest that “vocabulary is a core component of language proficiency and provides much of the basis for how well learners speak, listen, read and write.”

In teaching vocabulary, a teacher needs to use proper technique in order to help his students have good understanding on new words being learned. Nation (1990) in Cameron (2001:85) lists some basic techniques by which teachers can explain the meanings of new words. They are by using demonstration or pictures (using object, a cut-out figure, gesture, performing an action, photographs, drawings or diagrams on the board, and pictures from books) and by using verbal explanation (using analytical definition, putting the new word in a defining context, and translating into another language).

Teaching Vocabulary Using Still Pictures

Media have important roles in teaching and learning process. The use of media can facilitate teachers and students to reach the objectives of the teaching and learning process since they can support teachers’ explanation and help students to have better understanding on the lesson being learned. Besides, by using media, teachers can make their teaching more attractive and enjoyable. As a result, students’ motivation and interest in joining the lesson increase. Therefore, it is hoped that teachers use
variation of media to support their teaching as suggested by Harmer (2001: 134) that “as a language teacher, we use variety of teaching aids to explain language meaning and construction, engage students in a topic or as the basis of a whole activity.”

Pictures can be used as media in vocabulary teaching and learning process. Werf (2003) defines pictures as “illustrations that are cut from a magazine, newspapers or other sources. They are mostly photographs, but drawings, collages, maps or other illustrations can be used for certain activities.” He adds that pictures have many functions. With pictures we can: (1) teach, practice, or review new vocabulary; (2) do guided practice (drills); (3) practice grammatical structures; (4) practice listening comprehension; (5) do writing activities; (6) do semi-guided or free speaking practice such as problem solving activities, role plays, discussions, etc. Based on the definitions above, the writer defines Still Pictures as static images or illustrations which describe or explain something and can be taken from many sources such as magazine, newspaper, textbooks, photographs, drawings, etc.

**Cooperative Learning Method**

There are many methods in teaching. One of them is cooperative learning method. McCafferty, Jacobs and DaSilva Iddings (2006:4) suggest that “cooperative learning represents the product of ongoing investigation based on theory, research, and practice as to how to maximize the benefits of student-student interaction.” In addition, Gunter, Estes and Mintz (2007:263) state that “cooperative learning models are instructional sequences, a series of processes that structure pupil interactions in order to accomplish a specific, usually teacher-assigned goal.” Based on the definitions about cooperative learning above, the writer comes up with the definition that cooperative learning is a method in teaching and learning process which allows students to learn, work, and help each other in small groups. In other words, cooperative learning is a method which maximizes the benefits of student-student interaction. Thus, students can be more active in the learning process.

**Teaching Using Jigsaw II Technique**

Teaching using cooperative learning methods is very beneficial. Slavin (1995:2) suggests that there are many reasons that cooperative learning is entering the mainstream of educational practice. One is the extraordinary research base supporting the use of cooperative learning to increase student achievement, as well as such other outcomes as improved intergroup relations, acceptance of academically handicapped classmates, and increased self-esteem. Another reason is the growing realization that students need to learn to think, to solve problems, and to integrate and apply knowledge and skills, and that cooperative learning is an excellent means to that end. While cooperative learning works well in classes that are homogeneous, including classes for the gifted, special education classes, and even classes for the severely and profoundly average, it is especially needed in classes with a wide range of performance levels. In addition, Slavin (1995:15) states that “the most important goal of cooperative learning is to provide students with the knowledge, concepts, skills, and understanding they need to become happy and contributing members of our society.” Looking at the benefits and the goal of cooperative learning above, it is hoped that teachers can implement cooperative learning method in their teaching in order to make improvement in education.

In this study, the writer used Jigsaw II technique. In this technique, students are divided into learning groups and expert groups. Gunter, Estes and Mintz (2007:271) state: Jigsaw lesson divides the class up into two different kinds of groups, expert groups and learning groups. The expert groups all read and study the same material—they become expert on the topic and prepare an outline and/or graphic that summarizes the critical information of their unit. As a group, they determine how this information will be shared with their peers. After the expert groups have completed their study,
they meet with their learning group composed of a member of each expert group. Each expert teaches his or her topic to the members of the learning group.

According to Gunter, Estes and Mintz (2007:271-274), the steps of Jigsaw technique are: (1) introduce the Jigsaw, (2) assign heterogeneously grouped students to expert and learning groups, (3) explain the task ad assemble expert group, (4) allow expert group to process information, (5) experts teach in their learning group, (6) hold individuals accountable, (7) evaluate the Jigsaw process.

Jigsaw technique and Jigsaw II technique are similar, but there is a difference between them. According to McCafferty, Jacobs and DaSilva Iddings (2006:186), basically the steps in Jigsaw and Jigsaw II technique are the same, but in Jigsaw II technique students receive not only the material relevant to their part of the topic, but also the whole material of the topic being discussed. Thus, the learning teams in Jigsaw II technique are more independent rather than the ones in Jigsaw technique.

**METHODS**

This study was a classroom action research with class 7B of SMP N 12 Magelang as the subject of this study. In order to collect data about students’ vocabulary mastery improvement and responses toward the use of this technique and media, the writer used observation sheet, questionnaire, interview, and test. In this study, there were two cycles in which each cycle consisted four phases. They were planning, action, observation, and reflection. Before beginning the cycle one, the writer conducted a preliminary observation to the students and gave them a pre test to measure their early vocabulary mastery. At the end of each action phase, the writer gave formative test to students, while the post test was given after all the meetings were done.

In planning phase, the writer prepared everything needed in her research. In action phase, the writer taught vocabulary to students. Since the lesson was about procedure text, in this research the writer focused on teaching noun and action verb related to recipe and other type of procedure text. During her teaching, the writer used Jigsaw II technique and Still Pictures to teach vocabulary to students. She facilitated the students to learn actively in their learning groups and expert groups by using Still Pictures related to the material. In observation phase the writer was helped by three observers to observe the vocabulary learning process using Jigsaw II technique and Still Pictures. The observers were asked to fill the observation sheets about students’ responses toward the use of Jigsaw II technique and still pictures. The responses being observed were:

**Positive Responses:**

A = the student acts actively during the learning process
B = the student is able to work cooperatively in his or her group
C = the student has bravery to convey his or her opinion to his or her group
D = the student is able to explain the material he or she has mastered to his or her group
E = the student is enthusiastic in interacting with his or her group

**Negative Responses:**

F = the student performs reluctance in his or her group
G = the student is not able to work cooperatively with his or her group
H = the student causes any chaos and disturbance
I = the student does not pay attention to the lesson
J = the student is careless to his or her group

Besides, the observers were also asked to observe the implementation of Jigsaw II technique and still pictures during the teaching and learning process, and the writer’s class management. In reflection phase, the writer analyzed all data collected. If in cycle one there was a weakness or problem in implementing the technique and media, the writer would make revision and improvement by conducting the
next cycle until the problem was solved and the improvement of students’ vocabulary mastery was reached.

RESULT

This study was conducted to investigate the improvement of the students’ vocabulary mastery after learning using Jigsaw II technique and Still Pictures. Below are the research findings.

Looking at the data found in cycle one, it could be concluded that the implementation of Jigsaw II technique and Still Pictures to teach vocabulary in the first and second meeting of cycle one run well. The strengths of the first cycle were the students were very enthusiastic and active in learning vocabulary using this technique and media. Besides, there was a significant improvement on the students’ vocabulary achievement. However, there were some points that should be revised and improved by the writer. First, there were some students who performed negative responses F (the student performs reluctance in his or her group) and H (the student causes any chaos and disturbance) toward the use of Jigsaw II technique and Still Pictures. The students might perform reluctance because he or she could not get along with his or her partners or did not understand the instruction given well. Besides, the students might cause any chaos and disturbance because he or she was too enthusiastic in doing discussion, so he or she produced very loudly voiced. Second, based on the discussion result conducted between the writer and the observers, the expert groups’ discussion time was too long. Third, according to the first and second observer, the writer was not able to catch the students’ attention in the first meeting of cycle one. Because there were found some weaknesses in the cycle one, the writer conducted cycle two to correct those weaknesses. The writer should give more attention and helps to the students who performed negative responses, limit the discussion time, and increase her classroom management strategy.

After cycle two was conducted, it could be concluded that the implementation of Jigsaw II technique and Still Pictures to teach vocabulary in the first and second meeting of cycle two run better than in the cycle one. In this cycle the writer successfully solved the problems found in cycle one. First, the implementation of Jigsaw II technique was more effective because she gave time limitation in each activity during the teaching and learning process, so the learning time became more effective. Second, by giving more attention and helps to the students who performed negative responses, the number of student who performed negative responses F (the student performs reluctance in his or her group) and H (the student causes any chaos and disturbance) decreased. Third, by improving her teaching strategy, the writer could catch the students’ attention during the teaching and learning process. In addition, according to the observers, in this cycle the students’ and the writer’s performances during teaching and learning process improved. Looking at the facts above, the writer concluded that this classroom action research successfully solved the problem of students’ vocabulary mastery, so the next cycle was not necessary to be conducted.

The improvement of students’ average score from pre test until post test can be seen on the graphic below:
The graphic above shows that the students' score on vocabulary test improved. At first, the students' average score of the pre test was 72.4. It was lower than the passing assessment (KKM) of SMP Negeri 12 Magelang, that was 73. After learning vocabulary using Jigsaw II technique and still pictures in cycle one, the students' vocabulary improved. It was proved by the significant improvement on their score in the quiz one. The students' average score of quiz one increased at 11.85 point (from 72.4 to 84.25). The improvement also happened in the quiz two and in the post test. In the quiz two, the students' average score increased became 88.25 and in the post test their average score increased at 92.3. Based on the explanation above, it can be concluded that after the students were taught using Jigsaw II technique and Still Pictures, their score improved significantly.

Besides showing the improvement in students' vocabulary achievement, the writer would like to show the improvement in students' responses toward the use of Jigsaw II technique and Still Pictures. The improvement can be seen in on the table and figure below:
Based on the data above, the students’ responses toward the use of Jigsaw II technique and still Pictures were good and improved. However, in the first meeting of cycle two, the students’ response toward aspect D (the student is able to explain the material he or she has mastered to his or her group) decreased from the second meeting of cycle one, but it increased again in the second meeting of cycle two. While the negative responses were relatively low. The students did not perform negative responses G (the student is not able to work cooperatively with his or her group), (the student does not pay attention to the lesson I), and J (the student is careless to his or her group). While the negative responses F (the student performs reluctance in his or her group) and H (the student causes any chaos and disturbance) decreased from meeting to meeting.

**DISCUSSION**

In this research, the writer implemented one of cooperative learning techniques, that was
Jigsaw II technique. There have been many previous researches and theories suggest that cooperative learning method has many advantages in teaching and learning process. A research conducted by Kaptiningrum (2011) proved that cooperative learning method can improve students’ achievement. Based on the result of her research, Jigsaw technique could improve students’ show presenting skill. In addition, McCafferty, Jacobs and DaSilva Iddings (2006:6) state that:

Cooperative learning has a strong foundation in research. Many hundreds of studies across a wide range of subject areas and age group have been conducted. These studies suggest that when compared to other instructional approaches, cooperative learning activities are associated with gains in achievement, higher-level thinking, self-esteem, and interethnic relations. Students in cooperative settings tend to like the subject matter and their school more. Indeed, Johnson (1997) claims that cooperative learning is one of the best-researched approaches in education, and that when the public ask educators what we know that works in education, cooperative learning is one of our surest answer.

In fact, during her research, the writer also found that cooperative learning gives many benefits and can improve students’ achievement. Based on her research, when students were taught using Jigsaw II technique, they could participate actively in the teaching and learning process and learned the given material independently and enthusiastically. Besides, the result of questionnaire showed that most of the students were very happy and interested in learning using this technique, could improve their self esteem in speaking in front of their friends, and could build better solidarity with their classmates. Moreover, the result of the students’ test score showed that their achievement in vocabulary improved significantly.

On the other hand, besides having many advantages, cooperative learning also has some weaknesses. McCafferty, Jacobs and DaSilva Iddings (2006:3) suggest that “however, despite the many advantages of group activities, problems also arise, problems that have led some teachers to give up on using group work. These problems include members not participating, groups not getting along, or learners unable to do the task.” Different teachers might find different weaknesses and difficulties in implementing cooperative learning. Thus, every teacher should have his or her own strategy to overcome the weaknesses or difficulties found. The writer herself also met some disadvantages of cooperative learning. In her research, the writer found that Jigsaw II technique was very time consuming and sometimes made the class became noisy. In order to overcome these weaknesses of this cooperative learning technique, the writer gave time limitation in every activity. Besides, she improved her classroom management by increasing the discipline in the classroom. Thus, the learning time became effective and the students became easier to be handled.

Besides using cooperative learning technique in teaching vocabulary, the writer also used Still Pictures as the media. There also have been many previous researches and theories suggest that pictures give many benefits in teaching and learning process. Rohmah (2011) proved that pictures can enhance students’ achievement. The result of her study showed that the achievement of the students in learning vocabulary through internet picture dictionary improved. Moreover, Gerlach and Donald (1980) in Kalisa (2011:15) suggest that the advantages of using pictures are that they are inexpensive and widely available; they provide common experiences for an entire group; the visual detail make it possible to study subject, which would turn back to be impossible; they can help you to prevent and correct disconcentration; they offer a stimulus to further study, reading and research visual evidence is power tool; they help to focus attention and to develop critical judgment. During her teaching, the writer found that Still Pictures helped the students much in learning vocabulary. By having a discussion with their friends about the Still
Pictures given, the students could discover the meaning of new words easily and independently. Besides, pictures could improve their motivation and enthusiasm in learning vocabulary. Fortunately, during her research, the writer did not find any difficulties in teaching vocabulary using this media.

In order to collect data during this research, the writer used four instruments. They were observation sheets, questionnaire, interview, and test. The main instrument of the research was observation sheets, and supported by the other three instruments. The result of observation sheets, questionnaire and interview showed that the students and the teacher gave positive responses toward the use of Jigsaw II technique and Still Pictures. Besides, the students’ ability in speaking in front of their classmates, their class solidarity and their vocabulary mastery improved. The result of the test proved the improvement in students’ vocabulary achievement. The average of the pre test score before the students were taught using this technique and media was 72.4. It was lower than the passing assessment (KKM) of SMP Negeri 12 Magelang, that was 73. Then, after learning using this technique and media, the students’ average score increased become 84.25 in quiz one, 88.25 in quiz two, and 92.3 in the post test.

Based on the analysis of the overall activity in the action research cycles and result of each instrument, it could be concluded that the implementation of Jigsaw II technique and Still Pictures in class 7B of SMP N 12 Magelang run well and it could improve students’ vocabulary mastery. Besides, the students’ and English teacher’s responses and attitude toward the use of this technique and media were good.

CONCLUSION

Looking at the result of this study, and the discussion above, it could be concluded that the use of Jigsaw II technique and Still Pictures combination can improve students’ vocabulary mastery. However, considering that cooperative learning also has weaknesses such as members not participating, groups not getting along, learners unable to do the task, time consuming, etc, so the writer suggest that cooperative learning is better not to be used in all learning activities or to teach all school material. It is better for teacher to combine cooperative learning with other teaching and learning technique. Besides, in implementing particular cooperative learning technique, teachers also should implement good classroom management to handle the effect of cooperative learning such as the class becomes noisy and so on.

REFERENCES


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