

USING DIGITAL CROSSWORD AS A MEDIA TO TEACH ENGLISH VOCABULARY TO THE EIGHT GRADE OF SMP IPIEMS SURABAYA



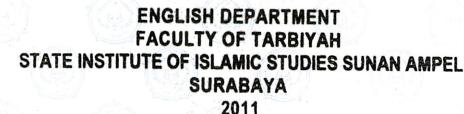
THESIS

Submitted in Partial Fulfillment of the Requirements for the Degree of Sarjana Pendidikan Islam (S.Pd.I) in Teaching English



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ABSTRACT

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Key Words: Digital Crossword, Teaching, Vocabulary, Eight Grades.

Most of students of secondary school lack of vocabulary. By mastering limited number of vocabulary, they are unable to communicate in English. Here, software game can be an alternative technique to help them master vocabulary better. By playing game, the students will feel free to express their own ideas. Because, when game is used in learning teaching process, it makes the students enjoy the lesson. Therefore, their motivation to learn English will be increased. Considering that, the study on teaching vocabulary is conducted by using "Digital crossword" to Junior High School students in SMP IPIEMS Surabaya in VIII D class.

In line with the matter above, a research study was conducted by formulating research questions. Those were 1. How does digital crossword improve the students' vocabulary mastery? 2. How are the students' responses toward the use of digital crossword in teaching English vocabulary? The researcher applied an action research design. It took two cycles in order to find out the most effective technique to use digital crossword game. Here, there were four stages that must be done; those were planning, acting, observing, and reflecting. To support the observation, the researcher used some instruments; those are: observation checklist, field notes and data of the quizzes.

The result of the study showed that the game enabled the students be more active which in turn motivated the students to learn new vocabulary, used their ability to identify, and made them to be able to memorize new vocabulary related the topic. The result of the quizzes as the tests also showed that the use of "Digital crossword "could improve the students' English vocabulary mastery. This could be seen from the means score of 7.21, 7.6, 8.27, and 8.86. They indicated significant progress for each cycle.

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CHAPTER I

INTRODUCTION

This chapter provides the background of the study that describes the reason why the researcher intends to conduct the study. Because of those reason, problem of the study, objective of the study, and significance of the study are formulated. Next, the scope and limitation of the study is presented. Finally, the last part is the definition of key terms given to avoid misunderstanding of those terms.

A. Background of the Study

In Indonesia, English is a foreign language that is taught from Elementary school to university level. The Indonesian government realizes that English language is important to support and enhance the process of development in Indonesia and to absorb the developing science and technology.

Vocabulary is one of the language components that has to be mastered. It is important to learn the four language skills (listening, speaking, reading and writing). If the students have low mastery vocabulary, they will find difficulties in communication and comprehending reading material. According to Deighton, vocabulary is the most important aspect to learn English. In using the

language components, the students will be successful in expressing their ideas. But those who are poor in vocabulary will get some troubles in their skills¹.

The statement above shows how important vocabulary is. The successful students learning language depends on how many vocabulary they can master and how well they use them. Therefore, vocabulary acquisition plays a crucial role in learning foreign language.

In teaching and learning English, the teachers possess an important role during teaching learning process. They should give motivation and encouragement to the students in learning vocabulary and create the classroom more motivating than monotonous by providing various techniques in order that the students enjoy learning vocabulary. Furthermore, as facilitators they should help the students to achieve the target language. Therefore, the teacher should apply a suitable technique to motivate the students to learn vocabulary. They should be able to make some variations that can be done in the classroom. Because variation is one of the major factors in teaching learning process that can motivate and interest the students to learn English vocabulary. The experienced teachers know that to motivate students must teach many things beside students' books. One of the variations is by using computer.

¹ Deighton, Lee C. Encyclopedia of Education. (New York: Mc. Millan Co Free Press: 1971) P.61

Teachers should offer English language learners a language-rich environment in which students are constantly engaged in language activities. Computers can facilitate this type of environment. The computer can act as a tool to increase verbal exchange.

One way to use computers for English Language Learners is to teach vocabulary. Renee Kang and Dennis write, "Any attempt to treat vocabulary learning as learning of isolated facts certainly will not promote real vocabulary knowledge"². Students need to learn vocabulary in context and with visual clues to help them understand. Computers can provide this rich, contextual environment. The computer also allows students to become active learners in this environment. Computers can incorporate various learning strategies as well as accommodate a variety of learning styles.

Computer software can be used as teaching aid in the classroom, especially in vocabulary teaching. Computer software gives a great contribution for students in practicing the vocabulary assessment. Cynthia Lee also states that CD Rom could help the students' vocabulary achievement by practicing and helping them to change their way of learning vocabulary directly through the learning outcomes and performance³.

³ Cynthia Lee, Web-based teaching and English language teaching (a Hong Kong: 2001) P.1

² Renee Ybarra, Using *Technology to Help ESL/EFL Students Develop Language Skills* http://iteslj.org/Articles/Ybarra-Technology.html. Retrieved 2009-10-12

It has been increasingly argued that computer technologies can support learning in a number of ways. Many features of the computer are considered to enhance vocabulary development and reading comprehension: computer software is one of them. Computer software that uses various types of content, such as text, audio, video, game, graphics, animation, and interactivity⁴.

Based on the description in the preceding paragraph, the writer chooses digital crossword as a media to teach English vocabulary because digital crossword is simple and free software that is useful to design digital educational materials, especially exercises and tests. It is a way to create crossword puzzles. Anybody can create a crossword puzzle with the words that he or she want, by only giving eclipse crossword a list of word and clues. Teacher can use crosswords puzzles to review vocabulary and lessons for all subjects because crossword puzzles encourage logical thinking and correct spelling.

The pedagogical advantages of this combination of tools are clear.

Adding a lexical resource to digital crossword computer-based exercise motivates the student to learn, to try, to make mistakes, to explore and try again.

Unlike a paper exercise where any one word can be the stumbling block to

⁴ Andreea I. Constantinescu. *Using Technology to Assist in Vocabulary Acquisition and Reading Comprehension* http://iteslj.org/Articles/Constantinescu-Vocabulary.html. Retrieved 2010-03-27

understanding, this type of exercise provides the tools to overcome the difficulty, without embarrassment to the learner.

Based on the result of the informal interview with the teacher of the class, the class observation, and the result of the preliminary study, the writer chooses the students at the eight grade of SMP IPIEMS Surabaya as subject of this research because this class were not only in less of vocabulary, but they also lack of motivation to learn English. Since they were young learners, the researcher was sure that they will be interested in playing games and motivated to learn English. Therefore, their vocabulary mastery will increase.

In the other hand, SMP IPIEMS Surabaya is one of junior high school that uses Multi Media Laboratory to motivate students' interest in learning English. That is the reason why the researcher chooses SMP IPIEMS Surabaya to conduct his study.

B. Problem of the Study

Based on the background of the study above, this study will try to answer the following questions:

- 1. How does digital crossword improve the student's vocabulary mastery?
- 2. How are the students' responses toward the use of digital crossword in teaching English vocabulary?

C. Objective of the Study

Based on the research of the problem, the purpose of the study as follows:

- 1. To find out how digital crossword improves the student's vocabulary mastery.
- 2. To know the students' responses toward the use of digital crossword in teaching English vocabulary.

D. Significance of the study

The writer expects that this study would be useful for:

1. English teacher;

It can be used as a consideration in teaching vocabulary to enrich teaching technique of English and it can be applied in order to motivate the students to enjoy learning English.

2. Other researcher;

It is expected that the other researcher conduct similar study in different places and with the other respondents to find out the other advantages of this software game.

E. Scope and Limitation of the study

The researcher focuses on the process of learning activities by using digital crossword to teach English vocabulary to the eight grade of SMP IPIEMS.

Surabaya. He observes the class condition while the games are conducted. The research is done more than one meeting in order to find out the improvement of students' vocabulary mastery after using digital crossword.

F. Definition of Key Term

In order to make clear about definition of the terms and to avoid misunderstanding and misinterpretation, the terms are defined as follows:

- Digital Crossword: a simple and free software that is useful to design digital educational materials, especially exercises and tests. It is a way to create crossword puzzles.
- 2. Computer Software: electronic device for storing, data programmer, analyzing and producing information, for making calculations or controlling machines.
- Teaching: guiding and facilitating learning, enabling the learner to learn, setting the conditions for learning
- 4. Media: used by teacher to help him in English learning, so that the students can catch the idea meant by the teacher and the students are interested to learn English.
- 5. Vocabulary: the words used to communicate the understanding of speaking, writing and to develop the ability to communicate effectively. It is one of the language component used by human beings to exchange language.

CHAPTER II

REVIEW OF THE RELATED LITERATURE

In this chapter, presents review literature which is used to analyze the data. It gives an overview about nature of vocabulary, the importance of vocabulary mastery, the characteristic of computer software and the advantages of using digital crossword as a media to teach vocabulary for Junior High School students.

A. Vocabulary

1. The Nature of the Vocabulary

In learning language, especially English as a second language, the students need to master vocabulary. More vocabulary mastered by students will be better their performance in all aspects of learning language. Vocabulary is an important component of language. Deighton states that

Vocabulary is the most of component language power. In using a language, students who are rich in vocabulary will be successful both in expression skills: speaking and writing, and receptive skills: listening and reading. But those who are poor in vocabulary will get troubles in those skills⁵.

Vocabulary is a collection of words or phrase and a list of words in language textbook, usually alphabetically arranged and explained or defined. He adds that vocabulary is a total number of words that (with ruler for

⁵ Deighton, L.C, Vocabulary development in the classroom, (New York: 1970) P. 461

combining them) makes up a language. Vocabulary contains words to express one's thought, opinion and idea. People will not be able to communicate without language and language will never exist without vocabulary⁶.

Since we learn English as a foreign language, we must master and comprehend many skills. To reach the mastery of those skills, one of the basic elements is vocabulary mastery. Carter supports that a little thing cannot be covered without grammar but no one can be covered without vocabulary. It really shows that vocabulary holds an important part in English⁷.

2. The Importance of Vocabulary

Vocabulary is important in communication. People primarily communicate by using words. They come into contact with words. If someone wants to be able to communicate in certain language, he or she has to know about the vocabulary of the language. We will find vocabulary when we are studying reading, pronunciation, and structure and making dialogue. Richard and Rodger state there are always vocabulary items to be learned in all books of learning English in the classroom besides reading, structure, dialogue and pronunciation. There are words list, footnotes on reading and words exercises.

⁶ Horby, Oxfort advanced learner's dictionary or current English. (New York: Oxford university press, 1995) P. 1331

⁷ Carter, Ronald, Vocabularies and Language Teaching. (New York: Cambrige, 1988) P. 42

From the statement above it is clear that if the students do not have sufficient vocabulary, they will not understand the English text very well⁸.

Having enough vocabulary would be beneficial for all language skills. A student who lack of vocabulary will find difficulties in the language learning process and have little change to be successful in developing their other language. By having enough vocabulary of the foreign language, it makes easier for them to learn all language skills as speaking, reading, writing, and listening. Burton points out that a large vocabulary help learners to express their ideas precisely, vividly, and without repeating in composition and they can not do well in comprehension without a large vocabulary for the passages an question involve a range of words much wider than of daily conversation.

In foreign language teaching, vocabulary has a long time been a neglected area¹⁰. It means in learning foreign language, vocabulary is the most important thing to master and it cannot be ignored. And when someone has a lot of vocabulary, he or she will not find difficulties in learning language.

From the definition above, it is clear that vocabulary is the most important factors in teaching learning English as a foreign language even in

⁸ Richar and Rodger, *Approaches and methods in language teaching*.(Australia: Cambridge university press, 1987) P. 7

⁹ Burton, Mastering English language. (New York: 1982) P.98

¹⁰ Taylor, Linda, Teaching and learning Vocabulary. (New York: 1990) P. 1

all language. Thus, teacher should have the good method to make the students interested in learning English vocabulary easily.

3. Type of Vocabulary

Lado states that there are two types of vocabulary, function words and content words. Function words are words that must be learned in connection with the use in the sentence and which are limited in number or some lexical units of words that are used to express grammatical function. They consist of interrogators, preposition, auxiliaries, determiners, coordinator, etc. and then the content or lexical words are words whose meaning is recorded in dictionary and often stated by means, definition, synonym, antonym, contextual explanation, and can be learned in small group around life situation. They consist of noun, verb, adverb, and adjective 11.

4. Levels of vocabulary

There are three levels of vocabulary; elementary, intermediate, and advanced¹².

a. Elementary vocabulary is words that are easy to learn. They usually consist of simple words like person, animals or things in the classroom. In

¹¹ Lado, Robert, Language teaching: A scientific approach. (New York: McGraw-Hill, 196)

¹² Stainback, Susan Bray. And Stainback William C, Educating children with severe maladaptive behaviors. (New York: Stratton, 1980) P. 89

this way numbers of sense are involved. It is important to get success in language learning as they can strengths students' memorization of vocabulary being taught.

- b. Intermediate vocabulary is vocabulary of normal difficulty. It is best to teach intermediate vocabulary in contextual areas such as food, clothing, work, human body, education and government. Dictionary in this case is very useful to get meaning or explanation.
- c. Advanced vocabulary. In these level students will learn new vocabulary that are more difficult than before. English dictionary became very important in this case. However, context is still needed to get the meaning. Because in the dictionary words are explained in context and how to use the words properly in sentence. Therefore, they can compose good sentence in correct structure.

B. Teaching vocabulary

Teaching vocabulary is not easy for the teacher. Therefore, the teachers need to make preparation in teaching vocabulary. Thornburry states that the implications of teaching vocabulary are ¹³:

¹³ Thornburry, Scott. 2002. How to Teach Vocabulary. Singapore. Longman. P.30

- Learners need tasks and strategies to help them organize their mental lexicon by building networks of association.
- 2. Teachers need to accept that learning new words involves a period of "initial fuzziness".
- Learners need to win themselves of a reliance on direct translation from their mother tongue.
- 4. Words need to be presented in their meaning, their register, their collections, and their syntactic environments.
- Teacher should direct attention to the sounds of view words that are particularly stressed.
- 6. Learners should aim to build threshold vocabulary as quick as possible.
- 7. Learners need to be actively involved in learning of words.
- Learners need multiple exposures to words and they need to retrieve words from memory repeatedly.
- 9. Learners need to make multiple decisions about words.
- 10. Memory of new words can be reinforced if they are used to express personality relevant meanings.

11. Not all vocabulary that the learners need can be "taught": Learners will need plentiful exposure to talk and text as well as training for self learning.

C. Using Games to Teach Vocabulary

Games are often only to fill in a few minutes before the end of the lesson at class. The teacher does not realize yet that games can be used as one of the education aid in learning and teaching process of English. Some experts state the uses of game as follows:

Using games is the prompt for vocabulary teaching. It means that through the games, the teachers can teach their students effectively especially in vocabulary mastery¹⁴.

Dale says that an important objective of vocabulary instruction is to develop an interest in words. The student whose curiosity about words is aroused is likely to increase his/her vocabulary and to become more discriminating¹⁵.

As we know that using games is as prompts for vocabulary teaching. It means that through the games, the students will get the advantages, such as the students' vocabulary mastery will increase and it will increase and it will not make the students bored.

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¹⁴ Ibid, P.80

¹⁵ Dale, Edgar. *Technique of Teaching Vocabulary*. (USA. Held Educational Education Publications: 1971). P.302

Phun as cited by Doristy adds that that there are two advantages in vocabulary games: (1) there is sense of excitement about word and (2) there is sense of wonder and feeling pleasure¹⁶.

As a result of those advantages, the students are eager to learn the word, because they need it. It means that vocabulary games attract the students to learn and feel exited in learning words.

D. The Terms of Computer Software

1. Computer Aided Instruction (CAI)

Computer Aided Instruction (CAI) is the use of computer program designed for teaching. In using it, students have to follow the instruction in the lessons given. This program is limited to reading and writing skills but the lesson contains drills and exercises, games or simulation and comprehension passage. The students can also get great benefits by using this program ¹⁷. By using computer instruction, students will communicate in the target language well. Moreover, the teacher can still assist their students by answering their question, or explaining difficult words that they really do not understand about. Mirescu supports that "psychologically helpful in the beginning stages of computer assisted instruction as means of overcoming the barrier between

¹⁶ Doristy. Using Puzzle to Improve the Vocabulary of Elementary School. (S1 Thesis. Surabaya. UNESA. 2004) P.25

¹⁷ Mirescu, Simona, Computer Assisted Instruction in Language Teaching. (English teaching Forum vol 35 no 1 Jan 1997) P. 55

person and machine"18. In using this computer, students could directly be helped by the computer's instruction or option to be chosen. However, it does not mean that the students will work individually they can work in pairs.

2. Computer Assisted Language Learning (CALL)

Computer-Assisted language learning (CALL) is the term used for different forms of second language instruction accomplished with the use of computer. Hick and Hyde state that CALL as a teaching process directly involve a computer instruction and interactive material to control individual learning for each individual student¹⁹.

a. The Nature of CALL

Using computer software, especially computer assisted language learning (CALL), students can be motivated and facilitated better in vocabulary mastery. This fact is automatically dealing with the types and activities provided by CALL.

b. The Activities of CALL

¹⁸ Ibid. P. 55
¹⁹ Ibid, P. 53

The way of activities which can be conducted in an English classroom based on the use of computer software especially in the field of vocabulary mastery as follows²⁰:

1) Drill and Practice

It is kind of process to apply rules-work with concrete problem and grasp the materials. It is a kind of fast-paced check on discrete points of students' knowledge. In this case, there are 2 characteristics of grammar in this practice.

- a) Weak grammar motivates the students to study the forms.
- b) Strong grammar motivates or challenges the students' grasp of principles and teaches the students to learn from the error they have made.

2) Games

Games are familiar enough to be used in teaching vocabulary but in this context the game are computer software and need little instruction to be explained. This is really helpful in solving the barriers or obstacles in vocabulary acquisition and also reaching the goal of subject-matter mastery. Good games are well-disguised simulations. Mirescu states that games can either applied individually or with

Hope, G.R. Taylor. H.F, Using Computers in Teaching Foreign Language. (New Jersey, 1984) P.17

partner. So, it can overcome the barriers about teacher-students as well as students relationship²¹.

3) Tutorial lesson

Tutorial lesson is a new way of presenting information to the students. It present tables, charts, principle, exercises, definition of terms and appropriate branching. In this case, good tutorial lesson can break new concepts down into manageable pieces and check the students' comprehension frequently.

E. The Characteristics of Computer Software

The use of computer software refers to characteristics which match and suitable for the vocabulary teaching:

Computer software can be used as teaching aid in the classroom, especially in vocabulary teaching. Computer software gives a great contribution for students in practicing the vocabulary assessment. Cynthia Lee also states that CD Rom could help the students' vocabulary achievement by practicing and helping them to change their way of learning vocabulary directly through the learning outcomes and performance²².

²¹ Ibid, P. 55

²² Cynthia Lee, Web-based teaching and English language teaching (a Hong Kong: 2001)

- Computer software is one of the media, which provides factitive material.
 Warschauer supports this notion computer software "provides realistic, native speaker models of the language in a variety of media²³.
- Warschauer states that computer software provides enjoyable factor. By using computer software the teaching learning activities will be more effective and helpful because fun and interesting way²⁴.
- 4. One more thing, computer software should be design and performed in a simple way operation. So, it will not be complicated to be used by the students. Cynthia Lee argues that design should be user friendly²⁵.

F. The Advantages of Using Digital Crossword

The pedagogical advantages of this combination of tools are clear. Adding a lexical resource to digital crossword computer-based exercise motivates the student to learn, to try, to make mistakes, to explore and try again. Unlike a paper exercise where any one word can be the stumbling block to understanding, this type of exercise provides the tools to overcome the difficulty, without embarrassment to the learner.

Digital crossword can give feedback for errors. It is also one important advantage that the students can gain in mastering their vocabulary. Beside that the

25 lbid,P.2

²³ Warschauer, Mark and Daborah Healey, Computers and Language Learning: an Overview Language Teaching. (New York: 1998).

²⁴ Ibid.

students, they give various exercise. If they make errors or mistakes continuously, eclipse crossword will help them finding the answers. Later on they will not redo the same mistakes. Mirescu states that a computer can analyze the specific mistakes the students have made and can react in different way from the usual teacher. This is not only to self-correction, but also to understanding the principles behind the correct solution²⁶.

Sometimes, the ability of the students' mastery in the vocabulary acquisition is different from one to another. There are some clever, average and less able students. The less able students will require more practicing than certain exercises than others in order to help them acquiring vocabulary. Digital crossword here is very useful in helping less able students.

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²⁶ Zhu Zhu pets Hamsters. Welcome to eclipse Crossword http://www.eclipsecrossword.com/ Retrieved 2010-03-27

CHAPTER III

RESEARCH METHODOLOGY

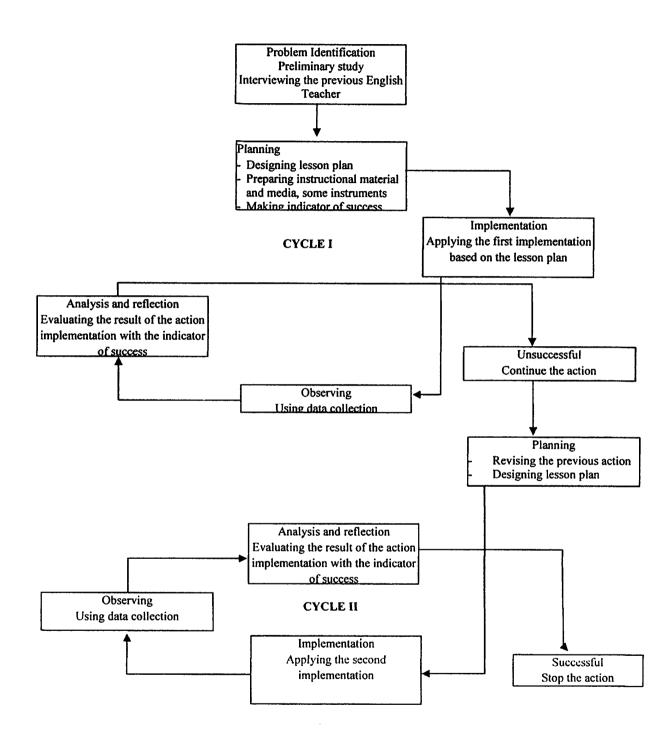
A. Research Design

The research is classified as collaborative action research. A classroom action research is an approach whereby a facilitator engages with a group of participants in the context of their working environment to help define and explore certain problems and needs²⁷. In this study the researcher will act as a real teacher who teaches the students. Meanwhile the real teacher acts as observer who observes the observer who applies the use of digital crossword in improving students' vocabulary competence when the teaching learning process conducted.

Since deals with the classroom setting, this study is directed to develop the teaching strategy in order to find out the solution to the classroom's problem in the teaching of vocabulary. To cope with the classroom's problem in the teaching of vocabulary, the real teacher acts as the practitioner who applies digital crossword as a media during the teaching and learning process.

The detailed model of classroom action research is the spiral model which consist four steps; planning, implementing, observing, reflecting.

²⁷ Bill Atweh, Stepen K. and Patricia W. Action Research in Practice: Partnership for Social Justice in education, (London: Routledge, 1998), P.212



Picture taken from. http://www.infoskripsi.com/images/stories/Research.jpg

B. Research Setting and Subject

This study will be conducted at SMP IPIEMS Surabaya. This school uses Multi Media Laboratory to motivate students' interest in learning English. The subject of this study is the eight grade students of SMP IPIEMS Surabaya with consideration that they still like the activities which promoted a lot of fun, such as games. In addition, digital crossword was not implemented before.

C. Population and Sample

Population is a set (or collection) of all elements possessing one or more attributes of interest²⁸. The population of this study is the eight grade students of SMP IPIEMS Surabaya. There are ten classes. Each class consists of around 34 students. A sample is a part of the researched population. The researcher will take class VIII D for the sample because the students of this school were not only in less of vocabulary, but also lack of motivation to learn English.

D. Research procedure

The study will be conducted under the following procedures: preliminary study, planning, implementing the action, observing and reflection.

1. Preliminary Study

²⁸ Suharsimi Arikunto, prosedur Penelitian: suatu pendekatan Praktek, (Jakarta: PT. Bumi Aksara, 2008), edisi revisi V, h. 108

A preliminary study was carried out to get information about the model of teaching and learning English at SMP IPIEMS Surabaya, especially in teaching and learning of vocabulary. In addition, the researcher attempts to get information about the students' problem in teaching and learning process, especially in teaching and learning of vocabulary. In the preliminary study, the researcher met the headmaster of SMP IPIEMS Surabaya to talk about the plan of the research and English teacher of eight grade students for an informal interview and doing direct observation in teaching and learning process. Conducting an informal interview with the English teacher, the analysis is carried out. From the analysis, the researcher will find out the students' vocabulary achievement of reading comprehension. The data obtained from those is used to set up an action plan.

2. Planning

In relation to the application of action research, the researcher will make a prior preparation to the implementation of the action based on preliminary study. In this case, the researcher will prepare a suitable model of using digital crossword as a media to teach vocabulary, design a lesson plan; prepare instructional material and media, criteria of success, and test.

a. Lesson Plan

The lesson plan is designed by considering the following items: (a)

Several stages, (b) Time allocation, (c) Stage aims, (d) Procedure of

teaching and learning activities, (e) Instructional material, (f) Assessment and evaluation.

b. Instructional Material and Media

In this research, the English teacher prepares the instructional material and digital crossword as a media which are suitable to the topic for vocabulary class, the material is taken from text book or others sources, the material and the media must be interesting and are able to support the teaching learning process.

c. The Criteria of Success

The criteria of success are set up in order to judge whether the implementation of the action is effective or not. Therefore, the criteria of success are used to see whether the application of using digital crossword in the teaching of vocabulary succeeded of failed.

There are three criteria used in the research to measure the success of the action, they are as follows:

- 1) The teacher has good performance in implementing digital crossword materials
- 2) The students are enthusiastic and approximately 75 percent of them participate during the teaching and learning process

3) More than or equal to 75 percent of students' score of vocabulary test is greater than or equal to 70.

3. Implementing the Action

After the planning finished, the teacher implements digital crossword that has been designed before to the eight grade of SMP IPIEMS Surabaya. The teacher teaches the students in the classroom based on the lesson plan has been made and the English teacher as the observer in doing teaching and learning process in the classroom.

4. Observing the Action

Observation is conducted to identify the classroom activities occurring during the teaching and learning process. The observation is conducted when the action is being implemented in the classroom. Observation checklists and field notes are used to facilitate the observer conducting the observation. These observations are used to monitor the teacher's step of action and the student's response toward the action given by the teacher during the teaching and learning process. The result of the observation and the field notes will become input for the improvement of the teacher performance in the following meeting.

a. Instruments and Data Collection Technique

There are some instruments prepared in order to be easier in monitoring the implementation of teaching and learning activities. All of those instruments are described as follows:

1) Observation checklist

Observation is used to inspect and observe the implementation of digital crossword during the teaching and learning process. This observation is addressed both to teacher and the students. There two observation checklist employed. The observation checklists for the teacher are used to observe the teacher's activities when the real teacher teaches in the classroom, while the observation checklist for the students are used to observe the students' activities during the teaching and learning process in the classroom.

The observation checklist contains some indicators that facilitate the researcher to collect the data. The indicators are about topic, teacher's activity and the students' activity. There are 24 items in teaching and learning activity. Those items describe the activity from the beginning until the ending of teaching and learning process that should be applied by the teacher.

Then, in the researcher gives the explanation from the each items above based on the result of observation checklist in order to make the data clearly and understandable.

2) Field-notes

The field-notes are used to investigate the teacher's and the students' activities which are beyond the observation checklists. They contain written descriptions of what the observer heard, saw, experienced and thought when reflecting the data during the teaching and learning process in the classroom²⁹. These field notes are intended to anticipate the possibility of losing the relevant data during the implementation of action. The aspects include the appropriateness to vocabulary task, the practically and ease of the media used, and the student's attitudes and problems during the implementation of digital crossword.

3) Testing

A test may be constructed primarily as devices to reinforce learning and to motivate the students or primarily as a means of assessing the students' performance in the language. A test is needed

²⁹ Suharsimi Arukunto, Opcit, h.78

to measure the ability of the respondents³⁰, because from this test the writer can analyze the result of the test to complete the data. After the teacher teaches English vocabulary, he gives the students a vocabulary test. The test will distribute to the students in every meeting. From the result of the test we can see whatever digital crossword can improve the students' vocabulary or not.

4) Questionnaire

The next way in collecting the data is questionnaire. A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents³¹. It means that in this study, students' will be given some questions to the students about some problems that have aim to get opinion of the students. The students must answer about the question based on what they got after the study applied digital crossword in teaching vocabulary, the question will be not aimed to measure students' vocabulary ability but those question on the questionnaires to know the information about the using of digital crossword in teaching vocabulary.

5. Reflection

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³⁰ Arikunto, Suharsimi. Prosedur Penelitian: Suatu Pendekatan Praktek. (Jakarta: Reneka Cipta. 2006)

³¹ Wikipedia, http://en.wikipedia.org/wiki/Questionnaire, Retrieved on 2009-11-18

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On the last meeting, the observer observes the teacher and the students'

activities in implementing stage while the product of the test is taken after

teaching learning process as a quiz. The observer interprets the data to decide

whether the action done is successful or not. If it is not successful, the teacher

decide a new plan for the next cycle with hope that next cycle had a better

result than the previous one. Overall, there was an improvement during

teaching learning process and the student's vocabulary mastery.

E. Data analysis technique

In this research, the writer used qualitative and quantitative manner. There

are two things connected to quantitative data analysis, which are the results of a

tasks and questionnaire. The results of tasks are analyzed to measure the students'

ability and mastery in vocabulary skill. To analyze this, the writer counts the

mean score. And the questionnaire distributed to know the students' attitude,

interest, and opinion about the use of digital crossword to teach vocabulary.

1. To find out mean score, the researcher uses a formula:

 $M = \sum X$

M = Mean

 $\sum X$ = Total of the students' score

N = Total of the students

2. To find out percentages of the students' attitude, interest, and opinion, the researcher uses formula:

$$\sum_{N} X \times 100 \%$$

$$\sum_{N} X$$
 = Total of the students' response
= Total of the students

The qualitative data analysis is data analysis that obtained from observing written material. In short, this data consists of whatever happened when observation was done and it does not score.

CHAPTER IV

RESULT AND DISCUSSION

This chapter dealt with the data presentation and discussion of the research. The researcher would like to consider and review what happened during the implementation of digital crossword in improving the students' vocabulary mastery. The discussion will elaborate the glance description of research object and the answer of problem of study in the chapter I.

The justification of the research findings discuss about the result of the observation checklists from the first until the last cycle, the result of the field notes from the first until the last cycle, the result of the questionnaire, and the last is the result of vocabulary test.

The discussion of the research findings section will mainly talk about the analysis of the classroom activities during the implementation of the strategy, the analysis of the students' responses toward the implementation of the strategy in the classroom.

A. The Glance Description of Research Object

SMP IPIEMS SURABAYA is located in Menur street no.125. The location of the school is very easy to reach from many sides and the place is very crowded, there are many vehicles which are operated everyday. The school has many facilities, such as yard, well-built classroom, hall, laboratories, canteen, parking lot, mosque, library, computer, etc. All students can follow the process of teaching and learning well. During the breaking period, students are happy to play

around the yard because there are some trees that make the yard comfortable as a playground.

All the teachers of SMP IPIEMS SURABAYA are very competent in their fields. Each teacher gives top priority to discipline and responsibility in performing his or her duties. Not only the teachers but also all the school workers consider discipline and responsibility as most important matter. The teachers and the school workers work each other to keep the school's good reputation and the students' quality.

All students of SMP IPIEMS SURABAYA are considered as selected students who have many achievements. Their interaction with their teachers is very good. One of strategic class is VIII D. They are 34 students consisting of 18 boys and 16 girls. They use computer laboratory that is well equipped with loud-speaker and an OHP (over head projector) in front of the classroom. The OHP is used as the facility to explain the material during the teaching and learning process. The students of class VIII D have sufficient knowledge in English skill.

B. The Description of Teacher's Activities in Implementing Digital Crossword Technique

There are two cycles (each cycle is two meetings) in this research. The topic was different in each cycle. The teacher had prepared the topic that will be used in implementing digital crossword technique. The description of the teacher's activities in implementing digital crossword is explained as follows:

1. First Cycle

First cycle was conducted in two meetings. The first meeting was on November 22, 2010 and the second meeting was on November 24, 2010. Here also presented the action plan, the implementation, observation and the reflection.

a. Planning

After the problem had been identified by preliminary study, the plan of action was done to improve the present situation. The problem was the students have less motivation to learning vocabulary and their vocabulary still low enough. Based on that analysis, the researcher tried to solve the problem by implementing Digital crossword. Hoping it would give more change for the students to improve their vocabulary mastery.

The first, the researcher made lesson plan (appendix 7 and 8). In choosing material there were some considerable, which are reasonable, reaching enough, interesting, and balance with the students level and curriculum in order to build up the students' vocabulary mastery. The indicators of this study were 1) identify the new vocabulary (noun and adjective), 2) identify the language feature (simple past).

The second, the teacher prepared two topics: they are *vacation* and *visiting Bali*. Then, he also prepared the digital crossword and told his students that they would play digital crossword individually.

b. Acting

After doing the planning, the researcher did some activities in this acting stage in two meetings:

1). the first meeting

In the first meeting, the teacher started by saying greeting to the students and checking the students' attendance to create conducive atmosphere. Before teaching, he had prepared the topic, which would be used to teach vocabulary using digital crossword. In this meeting, the teacher selected topic under title *Vacation*.

In warning up activities, the teacher made statements or questions related to the topic thought picture on OHP (Over Head Projector) to invite the students' background knowledge. The dialogue, which was done by the teacher and the students, was as follows:

Teacher : what picture is this? (The teacher showed the picture

to the students)

Students: Hotel Mr.

Teacher : excellent. What do you know about hotel?

Student (1) : it is a building

Student (2) : people stay there

Student (3) : building where people stay, for example on vacation

Teacher : Have you ever been in vacation?

Students : yes, I have

Teacher : What is your experience when you are in vacation?

Student (1): I'm very happy because I can see a beautiful place

Student (2) : I'm very happy because in Jogja I bough many clothes and souvenirs

Then, Teacher began to explain the instruction and give example how to play digital crossword on computer that would be played by them. It focused on new vocabularies, especially in *noun* and adjective. After everything was settled, the teacher went to the next activities.

The teacher gave 10 words in the crossword, and then teacher asked students to identify and answer the question individually in digital crossword on their computer. They did it in 10 minutes.

After they finished doing it, Teacher checking students' answer and discuss the material (part of speech including noun and adjective) in peer checking. The teacher guided the students in discussion. He asked the questions one by one in the digital crossword. The students looked interesting by saying the right answers loudly. At that time, he wrote the answers and gave the translation of the word in Indonesian. He did it until the whole of the questions had been answered.

To measure their memory about the words which have been quizzed and measure students' vocabulary mastery, the teacher asked students to answer the word in digital crossword again. 5 of the words

are same from the first crossword but explained in different clue and added by 5 new words. They did it in 10 minutes.

After they finished doing it, Teacher checking students' answer and discuss the material in peer checking. The teacher guided the discussion as like in the first quiz.

Once again, to measure their memory about the words which have been quizzed in first crossword, the teacher asked students to answer the word in digital crossword. 5 of the words are same from the first crossword but explained in different clue and added by 5 new words. They did it in 10 minutes.

After they finished doing it, Teacher checking students' answer and discuss the material in peer checking. The teacher guided the discussion as like in the first quiz.

The last test, teacher asked to use their word that was played in digital crossword before in daily activities by the answering gap fill quiz in the computer. It used to find out the improvement of students' vocabulary mastery after using digital crossword.

2). the second meeting

In the second meeting, the teacher started by saying greeting to the students and checking the students' attendance to create conducive atmosphere. The teacher gave information to his students that they would play digital crossword again, but in different topic and different aspect. The topic visiting Bali, it focused on the past tense verbs.

The similarity of the game with the first meeting was not only the rule of the game that the winner of the game was person who did the crossword perfectly as quickly as possible, but also the steps of the game was still the same with the first meeting (start from giving the instruction until the discussion of crossword).

After they finished doing it, Teacher checking students' answer and discuss the material (identify language feature; simple past) in peer checking. The teacher guided the students in discussion. He asked the questions one by one in the digital crossword. The students looked interesting by saying the right answers loudly. At that time, he wrote the answers and gave the translation of the word in Indonesian. He did it until the whole of the questions had been answered.

At last, still in same with the first meeting. Teacher asked to use their word that was played in digital crossword before in daily activities by the answering gap fill quiz in the computer. It used to find out the improvement of students' vocabulary mastery after using digital crossword.

c. Observing

Observation was an activity to collect the record and document from any indicators or aspect of interaction that happened in teaching and learning process.

In this stage, the observer monitored the implementation of digital crossword by using observation checklist. He observed whether the implementation met the criteria of success or not (Appendix 1 and 2)

The instruments were observation checklist and quiz. Observation checklist was needed to observe the teacher and the students' activities in teaching-learning process and also needed to make the lesson plan for the next cycle. Meanwhile, quiz was needed to evaluate the students' vocabulary mastery by scoring the students' quizzes at the end of each meeting.

d. Reflecting

On the last meeting, the researcher did reflection that focus on the teaching-learning process. In this case, the students got some problems. They might a little bit confusing with the implementation of digital crossword because it was the first time for them to apply such strategy. Therefore, they did not feel free express their own ideas and the teacher much more dominated the classroom. As result, the teacher decided a new plan for the next cycle with hope that next cycle had a better result than the previous one.

2. Second Cycle

Second cycle was conducted in two meetings. The first meeting was on November 29, 2010 and the second meeting was on December 1, 2010. Here also presented the implementation of the action plan in two meetings.

a. Planning

First of all the teacher prepared the lesson plan (appendix 9 and 10). Then the teacher divided the students in pair. It was classified by asking the students who sit in the same desk to work as a group. After that, the teacher gave the theme: my personal experience. Then, he also prepared the digital crossword game in pair.

b. Acting

After doing the planning, the researcher did some activities in this acting stage in two meetings:

1). the first meeting

In the first meeting, the teacher started by saying greeting to the students and checking the students' attendance to create conducive atmosphere. Before teaching, he had prepared the topic, which would be used to teach vocabulary using digital crossword. In this meeting, the teacher selected topic under title *my personal experience*.

In warning up activities, the teacher made statements or questions related to the topic thought picture on OHP (Over Head Projector) to invite the students' background knowledge. The dialogue, which was done by the teacher and the students, was as follows:

Teacher : what do you know about this picture? (The teacher

showed the picture to the students)

Student (1) : people get party

Student (2) : meeting of friends

Teacher : what party that meeting of friends who have not seen

for a long time.?

Students : reunion

Teacher : do you ever go to reunion party with your old friends?

Students: yes, I do

Teacher : What is your experience when you go to reunion?

Student : I'm very happy because I can meet old friends

Then, Teacher began to explain the instruction and give example how to play digital crossword on computer that would be played by them. It focused on new vocabularies, especially in *noun* and adjective. After everything was settled, the teacher went to the next activities.

The teacher gives 10 words in the crossword, and then teacher asked students to identify and answer the question in pair in digital crossword on their computer. They did it in 10 minutes.

After they finished doing it, Teacher checking students' answer and discuss the material (part of speech including noun and adjective) in peer checking. The teacher guided the students in discussion. He asked the questions one by one in the digital crossword. The students looked interesting by saying the right answers loudly. At that time, he wrote the answers and gave the translation of the word in Indonesian. He did it until the whole of the questions had been answered.

To measure their memory about the words which have been quizzed and measure students' vocabulary mastery, the teacher asked students to answer the word in digital crossword again. 5 of the words are same from the first crossword but explained in different clue and added by 5 new words.

They did it in 10 minutes.

After they finished doing it, Teacher checking students' answer and discuss the material in peer checking. The teacher guided the discussion as like in the first quiz.

Once again, to measure their memory about the words which have been quizzed in first crossword, the teacher asked students to answer the word in digital crossword. 5 of the words are same from the first crossword but explained in different clue and added by 5 new words. They did it in 10 minutes.

After they finished doing it, Teacher checking students' answer and discuss the material in peer checking. The teacher guided the discussion as like in the first quiz.

The last test, teacher asked to use their word that was played in digital crossword before in daily activities by the answering gap fill quiz in the computer. It used to find out the improvement of students' vocabulary mastery after using digital crossword.

2). the second meeting

In the second meeting, the teacher started by saying greeting to the students and checking the students' attendance to create conducive atmosphere. The teacher gave information to his students that they would play digital crossword again, but in *different aspect*. The topic *my personal experience*, it focused on *the past tense verbs*.

The similarity of the game with the first meeting was not only the rule of the game that the winner of the game was group who did the crossword perfectly as quickly as possible, but also the steps of the game was still the same with the first meeting (start from giving the instruction until the discussion of crossword)

After they finished doing it, Teacher checking students' answer and discuss the material (identify language feature; simple past) in peer checking. The teacher guided the students in discussion. He asked the questions one by one in the digital crossword. The students looked

interesting by saying the right answers loudly. At that time, he wrote the answers and gave the translation of the word in Indonesian. He did it until the whole of the questions had been answered.

At last, still in same with the first meeting. Teacher asked to use their word that was played in digital crossword before in daily activities by the answering gap fill quiz in the computer. It used to find out the improvement of students' vocabulary mastery after using digital crossword.

c. Observing

The observer collected the information from the teacher and the students' activities during acting stage by using observation checklist. He ticked the observation checklist in term of yes or no. if the activities written in the observation checklist happened in the teaching-learning process, he ticked the observation checklist in yes column. Meanwhile, if the activities written in the observation checklist did not happen in teaching-learning process, he ticked the observation checklist in no column (Appendix 3 and 4). Finally, he scored his students' quizzes.

d. Reflecting

The researcher did reflection that focused on the analysis of the teaching-learning process and the result of students' test (quizzes). In this cycle, the students gave the significant improvement both in teaching-learning process and the daily test (quizzes). The students were good in

improve their vocabulary mastery. The final result, the scores increased and reached the minimum standard score of their school.

This researched was conducted in two cycles, because all of the students got the scores 7 or higher. It meant they reached the indicator of success in teaching-learning process and could do digital crossword game appropriately in the class. The indicator of success is 75% got score 7 or higher.

C. The Description of Research Problem

1. The Result of the Observation Checklist

The observation checklist is an instrument completed by an observer to observe the teaching and learning process in the classroom during the implementation of suggested strategy. There are two cycle (each cycle two meeting) observation checklists.

a. First Cycle

First cycle was conducted in two meetings. The first meeting was on November 22, 2010 and the second meeting was on November 24, 2010. First cycle was the first time for the students to use the new strategy introduced by the teacher. To begin with, the teacher introduced the topic. Then, the teacher explained about the use of digital crossword technique and gave the modeling steps on how the students answered digital crossword questions on the computer. The introduction of the strategy ran

well after the teacher had given example how to fill the grid of digital crossword.

From the observation checklist, it could be seen that the teacher got difficulties to manage the class. Some of them were still confused about how to answer digital crossword questions on the computer. In addition, they also got difficulty in using their ability to identify. It made the teacher dominate the class. He had to be very active and translated each of the instructions in Indonesia. Therefore, the implementation of crossword puzzle game must be changed in another technique. As a result, the teacher changed it *into pair work* in the next cycle.

b. Second Cycle

Second cycle was conducted in two meetings. The first meeting was on November 29, 2010 and the second meeting was on December 1, 2010. In the second cycle, students were no more confused with the mechanism of the strategy although the teacher gave them a new topic. There were no remarkable things to be reflected in this cycle because the activity has been done well. To begin with, the teacher gave motivation to the students and aroused their schemata about the topic though picture as a media to gather the students, attention. The result of learning was that students were able to answer the digital crossword questions well.

2. The Result of Field Notes

When the teacher implemented the strategy in the classroom, the observer monitored the teaching and learning activities by making notes on some important to be discussed in the reflection stage. The result of the field notes would be used to add some information that might not be covered by the items in the observation checklist. In the reflection stage, the result of the field notes was considered for the next cycle of the research. Below is the field note of the first and second cycle.

a. first cycle

In the beginning of the meeting, teacher also explained the students about the purpose of teaching. Since the mechanism of the strategy was conducted individually, the teacher had prepared the hand out well. Students' responses were good, but they were not active in the class. Several students correctly answered some questions about the topic.

However, there were still some things to be considered more on the next cycle, for example the classroom domination, students' attitude when strategy was implemented in the classroom, and the students' problem with the mechanism of strategy.

b. Second cycle

As the result of reflection from the first cycle, the researcher decided to change the technique from the *individual work* into *in pair work*.

Then, he told that the winner of the game was the pair who did digital crossword perfectly as quickly as possible. The students seemed very curious to solve the crosswords. They were motivated to be the winner of the game. Since it motivated the students to learn new vocabularies, they used their ability to identify, and also able to memorize new vocabularies related to the topic. Therefore, the teacher did not dominate the class again.

3. The Result of the Questionnaire

The questionnaire concerns about the development of the classroom activity after the implementation digital crossword technique. This development includes the students, point of view on using digital crossword technique in teaching and learning process, the topic of text, the teacher's role, and the advantages of digital crossword technique.

The questionnaire consists of 16 questions. The question number I up to 2 concerns about the students' opinion of English lesson especially in vocabulary activity. The question number 3 up to number 6 concerns about the students' opinion of using digital crossword technique. The question number 7 up to number 10 concerns about the students' opinion of the topic. The question number 11 up to number 14 concerns about the teacher's role. In addition, the question number 15 up to number 16 concerns about the students' opinion of the advantages of digital crossword technique.

The following is the result of questionnaire in the form of number and percentage

Table 1. Results of Questionnaire

Number of Question	A	В	С	D	Total
1	7	18	9	-	34
2	7	21	5	1	34
3	5	23	6	_	34
4	8	21	5	-	34
5	5	23	6	-	34
6	9	19	6	-	34
7	5	19	10	-	34
8	4	9	6	15	34
9	10	20	4	-	34
10	9	19	6	-	34
11	7	17	10	-	34
12	7	17	10	-	34
13	8	19	7	-	34
14	8	20	6	-	34
15	13	18	3	-	34
16	11	20	3		34

a) The students' opinion about vocabulary in English lesson

Matters	Α	В	С	D
English Lesson	20,58%	52,94%	26,47%	~
Vocabulary activity	20,58%	61,76%	14,70%	2,94%

b) The students' opinion on the use of Digital Crossword technique

Matters	Α	В	С	D
Technique's interest	14,70%	67,64%	17,64%	-
The implementation of technique	23,52%	61,76%	14,70%	-
Technique's level	14,70%	67,64%	17,64%	-
Technique' function	26,47%	55,88%	17,64%	-

c) The students' opinion about the topic

Matters	Α	В	С	D
Topic's interest	14,70%	55,88%	29,41%	-
Topic's level	11,76%	26,47%	17,64%	44,11%
Topic's useful	29.41%	58,82%	11,76%	-
Technique's necessity	26,47%	55,88%	17,64%	-

d) The students' opinion about the teacher's role

Matters	Α	В	С	D
Teacher's explanation on topic	20,58%	50%	29,41%	
Teacher's mastery in material	20,58%	50%	29,41%	-
Teacher's role	23,52%	55,88%	20,58%	-
Teacher's feedback	23,52%	58,82%	17,64%	-

e) The students' opinion about the advantages of Digital Crossword

Matters	A	В	C	D
Technique's role	38,23%	52,94%	8,82%	-
The advantages of technique	32,35%	58,82%	8,82%	_

4. The Student's Scores

To measure the students' comprehension to the materials, the researcher gave assessment to the students for each meeting.

The assessment was given during four meetings. The kinds of assessments that were given in each meeting can be seen in appendix 13 and 14. To find out mean score, the researcher uses a formula:

$$M = \sum_{N} X$$

M = Mean $\sum X = Total of the students' score$ N = Total of the students

D. The Discussion Of The Research Findings

1. The Discussion of The Classroom Activities During The Implementation of Digital Crossword

a. first cycle

In this cycle, the discussion will be divided into two matters. First matter is about the application of digital crossword technique. And the second is about students' score. However the result of field notes will be used to provide some information that may not be covered by the items in observation checklists.

The first is about the application of digital crossword technique. In this case the students got some problems. They might a little bit confusing with the implementation of digital crossword because it was the first time for them to apply such strategy. Therefore, they did not feel free express their own ideas and the teacher much more dominated the classroom.

The second is about students' score. There are four quizzes in a meeting, each of the quizzes was consist of 10 items and demand 10 minutes in finishing. In doing the quiz, the teacher asked students to identify and answer the question individually in digital crossword on their computer. To avoid the confusion, the teacher translated the instruction in Indonesian. During the first cycle, the teacher made the average of the scores for each meeting. Therefore, their progress could be seen in the total scores for each meeting. It could be seen in table 2.

Table 2. The Students scores' of the quizzes

	1 st meeting	2 nd meeting
Average	7.21	7.6
Score min.	3	4
Score max.	10	10

Referring to the table above, at the first meeting of the first cycle, it could be seen that the average score was (7.21). In addition, the range scores between the highest score (10) and the lowest score (3) was too far. It meant that the difference between the smartest and the slowest students was far. It was proved that in the first quiz in the 1st cycle, most mistake were derived from the students' difficulties to identify the noun and adjective, because most of them are in very low English ability, especially in vocabulary mastery. It is the same with the second meeting of the 1st cycle. The average score 7, 6 and the range between the highest score (10) and the lowest score (4) was too far. The most mistakes were derived from the students' difficulties to identify the past verb. We could conclude that their vocabulary mastery was very low and they could not play individual work, therefore the teacher changed the technique of playing digital crossword. As result, the teacher decided a new plan for the next cycle with hope that next cycle had a better result than the previous one.

b. Second cycle

After the implementing strategy in the first cycle was not running well, the teacher decided to make the second cycle. In this cycle showed improvement in implementing the strategy. The teacher also no more dominated the classroom so that the students were motivated to memorize the vocabulary. They were also active to participate in the classroom.

After identifying the students' mistakes in the first cycle, the teacher made some changes toward the technique. In the second cycle, the teacher asked his students to do digital crossword in pair. It was classified by making two students in each table as the partner in pair.

It was in line with the Harmer. He stated that one of the advantage of the pair work was recognizes the old maxim that 'two head were better than one', and in promoting cooperation helped classroom to become a more relaxed and friendly place. If we get the students to make decisions in pairs (such as deciding on the correct answer questions), we allow them to share responsibility rather than having to bear the whole weight themselves³².

The students looked very serious doing digital crossword together with their pair. As a result, the students made fewer mistakes and they could comprehend more to identify the answers of digital crossword on their computer. The students' progress could be seen in the total scores for each meeting. It could be seen in table 3

Table 3. The Students scores' of the quizzes

	Quiz III	Quiz IV
Average	8.27	8.86
Score min.	6	7
Score max.	10	10

³² Jeremy Harmer, Practice of English language teaching, (England, 2001) P. 116

The progress of the students could be seen from the average score of the second cycle. At the first meeting of the second cycle, it could be seen that the average score was (8.27). In addition, the range scores between the highest score (10) and the lowest score (6) was not as far as before. At the final meeting, the students score showed a satisfactory result. It could be seen that the average score was (8.69). Moreover, they were almost the students who got better score and there were so many students who got the excellent scores (10). The students' maximum scores in all the meetings were (10). These facts indicated the validity of the test (quizzes), because each quiz was related to the material of digital crossword. It could be considered that some of students followed the each lesson seriously; therefore they got the maximum scores on their quizzes. From each cycle, there was some progress on the students' scores. The first quiz to the fourth quiz showed the means scores of 7.21, 7.6, 8.27, and 8.86 in successions. They indicated significant progress for each cycle.

By considering the total average scores, the best result was in the last cycle, so that, it was used to answer the research question that crossword puzzle game fitted the students' problem to improve their vocabulary mastery.

Based on the reason above, it could be concluded that digital crossword game fitted the theory to teach English vocabulary to the

second grade students of junior high school and fitted the students' problem in vocabulary mastery.

2. The Discussion of the Result of Questionnaire

In the description of research findings, the result of questionnaire has been briefly explained. The result of questionnaire will be analyzed based on the research problem that is going to be revealed. In this part, the discussion will be divided into five matters. The first is about the students' responses of English lesson especially in vocabulary activity, the second is about the students' responses of using digital crossword, the third is about the students' responses of the topic, the fourth is about the students' responses of teacher's role, and the last is about the students' responses of the advantages of using digital crossword.

The first is about the students' responses of English lesson especially in vocabulary activity. Based on the result of questionnaire, it could be concluded that most of the students liked English lesson. Although 26, 47% of the students stated that they rather liked English lesson, 73, 52% of the students admitted that they liked learning English especially in vocabulary activity.

The second is about the students' responses of using digital crossword technique. Based on the result of questionnaire, it could be concluded that the technique applied by the teacher was interesting. Although 17, 64% of the students admitted that the technique was not too interesting, 67, 64% of the

students admitted that the implementation of the strategy was easy to be followed. In addition, most of the students considered that the technique was appropriate and able to help them to explore their idea. This could be seen from the result of questionnaire that 55, 88% of the students could get their idea by using this technique.

The third is about the students' responses of the topic. Based on the topic's level in the result of questionnaire, the data showed that 55, 8% of the students admitted that topic was interesting and 44, 11% said that the topic was not difficult. It could be concluded that the topic was interesting and easy to understand since the topic presented by teacher.

The fourth is about the students' responses of the teacher's role. Based on the result of questionnaire, the data showed that there were 50% of the students stated that the teacher could briefly explain the lesson. In addition, there were 55, 88% of the students considered that the teacher mastered the strategy well. It could be concluded that the teacher's role was really good in the class that the students could comprehend the material well.

The last is about the students' responses of advantages of using digital crossword. After the implementation of the strategy, there were 52, 94% of the students who stated that this technique was necessary to be implemented in SMP IPIEMS Surabaya. In addition, there were 58, 82% of the students agreed that this technique was beneficial to improve students' vocabulary mastery. Based on the result of questionnaire, it could be concluded that this

technique has many advantages for the students in enhancing their vocabulary mastery.

In conclusion, the above discussion showed students' responses toward the implementation of the strategy was gradually good because the students admitted by themselves that this strategy was useful for them.

CHAPTER V

CONCLUSIONS AND SUGGESTIONS

This chapter dealt with conclusions and suggestions. Conclusion relates to the results and discussions. Then, suggestions contain some notes that are very important in using *digital crossword* to teach English vocabulary.

A. Conclusions

After doing the whole process in the action research of the teaching and learning English vocabulary to the eight grade students of Junior High School, the researcher as the teacher made some conclusions.

Using digital crossword as a technique of teaching English vocabulary fitted the theory and fitted the students' problems in vocabulary mastery. Based on the result of the study, it can be concluded that:

- 1. We could see that the game enabled the students to make them more active, motivated the students to learn new vocabulary, used their ability to identify, and made them to be able to memorize new vocabulary related the topic. When the digital crossword was presented in the interesting technique, the activity in classroom run easily and motivated students to learn English more.
- 2. From the test (quizzes) showed that from each cycle that there was some progress on the students' scores. It could be seen from the improvement of the mean of the students' scores. The first quiz until the fourth quiz showed the mean score of 7.21, 7.6, 8.27, and 8.86 in successions. They indicated significant progress for each cycle. It could be seen that the game was really

fitted the students' problem in improving their vocabulary mastery. Therefore, it could be concluded that the digital crossword fitted the theory of teaching English vocabulary to the eight grade students of Junior High School since the digital crossword fitted the students' problem.

B. Suggestions

Based on the results and discussion of the data analysis, there are some suggestions in the use of digital crossword to teach English vocabulary to the eight grade students of Junior High School.

For the teacher:

- How the teacher creates the non treating situation while the students are learning. The teacher supposed to tell the students that they will play a game.
 It will make them interested and excited. Therefore, it will create the enjoyable situation. Furthermore, do not forget to explain the instructions and the rules clearly and understandably. It is very important in the successfulness in playing the game.
- 2. The teacher has to pay attention in allocating the time. It is used to make the implementation of game is effective and does not waste the time. Beside that, the teacher has to control the students' interaction and observe the students' motions. As a result, they will not pay the game without an aim, because at the end of learning and teaching process, the students are expected to learn new vocabularies easily and the aims will be reached.

- 3. The teacher has to modify the technique in playing game, such as, digital crossword, whether it will be played individual, in pair, or in group. Even, the teacher can modify the forms of digital crossword. It depends on the students' English ability and their level of education.
- 4. The teacher should give the reinforcement by asking questions, making list of the important points about what they have learned on that day, and giving the exercises or homework to memorize the lesson that day.
- 5. The teacher is supposed to give the special prize to winner at the end of the game, because they do competition in that game. And it will be more interesting if the teacher give them snack, such as candy to create the good atmosphere in playing game.

Besides giving the suggestions to the teacher, the researcher also suggests the further researcher dealing with the use of "crossword puzzle" game to teach English vocabulary to the eight grade students of Junior High school. The researcher is supposed to conduct similar study in different places and with other respondents to find out the other advantages of this game. It can be conducted with different kind material of the crossword. For examples: animals' crossword, sports' crossword, or fish's crossword. Then, the further research can be implemented in different English skill, such as speaking skill and played in a group work. Therefore, it can be known whether the game can improve their speaking ability or not.

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