THE EFFECTIVENESS OF USING COMPUTER GAME "FAST HANDS" TO IMPROVE STUDENTS' VOCABULARY MASTERY FOR JUNIOR HIGH SCHOOL

(A Quasi Experimental Research at the Eighth Grade Students of SMP Negeri 1 Muntilan in the Academic Year of 2014/2015)

a final project

submitted in partial fulfilment of the requirements

for the degree of *Sarjana Pendidikan*

in English

by

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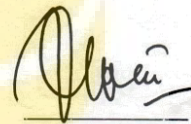   Prof. Dr. Agus Nuryatin, M. Hum.
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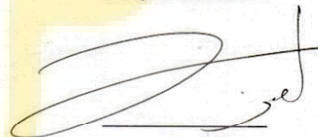   Dr. Rudi Hartono S.S, M.Pd.
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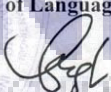   Arif Suryo Priyatmojo S.Pd., M.Pd.
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MOTTO AND DEDICATION

"People who never make mistakes are

*those who never try new things." **(Albert Einstein)***

To:

- Allah SWT & Prophet Muhammad SAW
- My lovely parents
- My beloved sister
- All of my lovely friends

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v

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vi

ABSTRACT

This study was a quasi-experimental research aimed at finding out whether computer game "Fast Hands" effectively improve students'' vocabulary or not. The population of this study were 192 students from the eighth grade of SMP Negeri 1 Muntilan in the academic year 2014/2015. Of this population, two classes were chosen as the experimental group (VIII-B) and the control group (VIII-F) consisting of 24 students for each group. Thus, there were 48 students as the samples.

In obtaining the data, the writer conducted four steps of experiment. The first, the writer conducted try out test to measure the validity and reliability of the instruments. Then, the pre-test was conducted to the experimental and control groups. Third, the treatment was conducted for the experimental group. It was conducted two times. The last, the posttest was given to both the experimental and control group.

Based on the result of the analysis, it is shown that the students'' progress in mastering vocabulary for both groups is good after they were given the treatment. It is shown from the different means result in the experimental group, that is from 66.46 in the pre-test to 84.79 in the posttest. Thus, it has 18.33 in difference. In the control group the difference between the two means is 13.54. 65.83 in the pre-test and 79.37 in the posttest.

To check whether the treatment significantly influenced students'' vocabulary, the t-test formula was used. Based on the result of the computation, the t-value is 2.237. This result was consulted with the critical value on the t-table with 5% alpha level of significance and 40 degrees of freedom by using interpolation. Based on the result of interpolation, the critical value is 2.015. Since t-value is higher than t-table (2.237 > 2.015) it can be concluded that computer game "Fast Hands" effectively improve students'' vocabulary compared to the Word Lists Strategy. Thus, it is suggested that the teachers may use computer game "Fast Hands" in their teaching practice especially in improving students'' vocabulary.

TABLE OF CONTENTS

II.   REVIEW OF RELATED LITERATURE

III.   RESEARCH METHODOLOGIES

LIST OF APPENDICES

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

This chapter deals with the background of the study, reasons for choosing the topic, statement of the problems, objectives of the study, hypothesis, significance of the study, limitation of the study, definition of key terms, and the outline of the study.

1.1 Background of The Study

English as one of the most influential languages in the world is very important to learn because it can be used to give and receive information and to develop education, technology and art. English is also useful for young students. Preparing students to learn English as early as possible is a very good thing because their brains are ready to learn and will be very easy for them to master.

English is the most widely used language in the world. In addition, Indonesia is one of the countries that many of its citizen use English as their daily language. Even many schools have implemented English as their primary language. It shows that English is a language that has a very large influence in life, especially in education, technology, science, art and in making the relationship of cooperation with other countries. The current era of globalization requires Human Resources to compete in accordance with current development.

Therefore, English should be given or be introduced to students since they are children.

In English, there are four skills that should be mastered namely listening, speaking, reading and writing. In order to master English, we should also master the grammatical rule and vocabulary. More and more we master vocabulary, then it will be easier for us in mastering English.

Laufer (1997:140) in Indriarti (2014) states that learning vocabulary is one of the most important elements without which neither comprehension nor production of language is possible. On the other word, vocabulary cannot be separated from other language skills. The more words the learners know, they will be more better to understand what they hear or read. In addition, the more words they have, they will be more accurate to express their ideas in spoken or written form.

In School-Based Curriculum, teachers are given the freedom to utilize a variety of methods and media that can improve the interest, attention, and creativity of learners. This is important because in School Based Curriculum the teacher serves as a facilitator who is expected to select the media used in learning. Medium as one of learning sources is an alternative way to optimize the learning process.

The media used should be interesting and they match to the characteristics of the learners. This aspect can be done by applying learning and playing technique, such as the use of computer games. Learning through computer games is able to provide several advantages. First, lessons given can be accepted with

delight, as related with the nature of the game that is entertaining and exciting. Second, because game is fun, playing at once arouse great interest for learners in a particular subject.

Computer game has spread rapidly in youth people life; they get accustomed to the computer game rather than the other technology. By the development of the technology, computer game comes in various types. It is possible that we consider about the use of computer game as a medium in teaching and learning.

Here the writer tries to use *"Fast Hands"* as one of computer games to teach vocabulary. This is a game for learning English focusing on vocabulary items where the player will listen to the sound or read the word and then click on the matching pictures. It is really easy, fun and interesting to learn and review words. The players can choose the content that they want to play with and there are more than 500 vocabulary items in total.

By using computer game *"Fast Hands"* as a medium for teaching, learners are expected to be more interested in learning vocabulary and they get motivated in teaching learning process.

1.2 Reasons for Choosing The Topic

The curriculum used nowadays is oriented on competence meaning that the students are required to have specific competencies or skills as a result of the learning process at schools. Competency-based education emphasizes on ability that must be owned by the students of an educational level. Standard competence

is the ability that must be mastered by the students. Competence (ability) is the main capital of the students to compete on a global level. Therefore, the application of competency-based education is expected to produce students who can compete at a global level.

In SMP Negeri 1 Muntilan, the school where the researcher implemented teaching practice, if the students had difficulty in understanding the meaning of a word during the learning process, then finally the teacher gave shortcut to them by way of asking the students to look for the meaning of the word in the dictionary and informing directly the meaning of the word.

Although those ways can help the students understand the meaning of words, it will give bad influences for the students because not all students bring a dictionary during the learning process, students always rely on a dictionary instead of understanding the context of the word, and students become lazy to look for the meaning of the word by themselves because they usually know the meaning of the word from the teacher.

Looking at the constraints above, so the researcher is trying to find a wide variety of interesting learning media for teaching and learning process in order to improve the vocabulary mastery of the students in SMP Negeri 1 Muntilan. Hopefully, the use of computer game *"Fast Hands"* will improve the students" vocabulary mastery and the achievement of language can be improved.

1.3 Statement of the Problems

Based on the background of the study and the reasons for choosing the topic, the aim of this research is to answer the following questions:

1. How does computer game *"Fast Hands"* significantly affect eighth grade students" vocabulary mastery at SMP N 1 Muntilan in the academic year of 2014/2015?

2. How does computer game *"Fast Hands"* improve eighth grade students" vocabulary mastery at SMP N 1 Muntilan in the academic year of 2014/2015?

1.4 Objectives of The Study

In this research the researcher has three objectives to be achieved as follows:

1. to find out how computer game *"Fast Hands"* significantly affect eighth grade students" vocabulary mastery at SMP N 1 Muntilan in the academic year of 2014/2015.

2. to find out how computer game *"Fast Hands"* improve eighth grade students" vocabulary mastery at SMP N 1 Muntilan in the academic year of 2014/2015.

1.5 Hypothesis

In a research, there are two kinds of hypothesis. They are working hypothesis and null hypothesis. In order to conduct this study, however, the writer only focuses on working hypothesis.

Based on the problem on this study, the following working hypothesis can be drawn as follows:

Hi   : Using computer game "fast hands" is effective in mastering students" vocabulary especially at the eighth grade students of SMP Negeri 1 Muntilan in the academic year of 2014/2015.

1.6   Significances of The Study

The results of this study are expected to give some benefits related to pedagogical, practical and theoretical significances. Pedagogically, it is hoped that this study can help the students become independent learners who have their own medium to memorize vocabulary in an interesting way through computer game *"Fast Hands"* and motivate them to improve their interest to learn English.

Practically, teachers hopefully will get new suggestion to enrich their media in teaching English vocabulary, especially English teachers who teach at the eighth grade students of SMP Negeri 1 Muntilan, and motivate them to use computer game *"Fast Hands"* as an alternative way in teaching vocabulary to improve students` vocabulary mastery. The result of this study is also expected to help the readers enrich their knowledge about interesting medium to teach vocabulary. Moreover, it is hoped that this study can give an experience for the writer as a teacher candidate about the real condition of teaching-learning process, and be useful to improve her knowledge about teaching vocabulary by using computer game "Fast Hands".

Theoretically, the writer hopes this study can be used as a reference and will help future researchers to get inspiration to follow up the result of this study to improve the quality of English learning teaching process, especially in teaching vocabulary to improve students`s vocabulary mastery better in the future.

1.7   Limitation of The Study

The limitation of this study are:

1. The observation of this study is only conducted for the eighth grade students of SMP Negeri 1 Muntilan in the academic year of 2014/2015.

2. The present study only focuses on vocabulary achievement of the eight grade students of SMP Negeri 1 Muntilan in the academic year of 2014/2015.

3. This study is focused on the effectiveness of computer game *"Fast hands"* as a medium to improve students`s vocabulary mastery of the eighth grade students of SMP Negeri 1 Muntilan in the academic year of 2014/2015.

1.8   Definition of Key Terms

In order to make this study becomes easier to be understood, the writer draws the definition of the terms used in the present study briefly. Generally, the terms definition can be seen as follows:

1. Computer Game

According to Prensky (2001:118), a game is recognised as organised play that gives us enjoyment and pleasure. He also states that computer games can be characterised by six key structural elements which, when combined together, strongly engage the player.

2. Fast Hands

Fast Hands is a game for learning English focusing on vocabulary items. In this game, you listen to the sound or read the word and then click on the matching pictures.

3. Vocabulary

Based on Oxford Advanced Dictionary written by Hornby (1995:1331), the definition of vocabulary are:

- the total number of words in a language

- all the words known to a person or used in a particular book, subject, etc

- a list of words with their meaning, especially one that accompanies a textbook in a foreign language.

1.9   Outline of The Study

Systematically, this study is organized into five chapters, which can be defined as follows:

Chapter I is introduction, which presents the background of the study, reasons for choosing the topic, statement of the problems, objectives of the study, hypothesis, significance of the study, limitation of the study, definition of key terms, and outline of the study.

Chapter II presents review of related literature, containing previous studies, review of the theoretical study, and framework analysis which supports the research.

Chapter III is research methodology, which presents the research design, subject of the study, population of the study, sample of the study, variables of the study, type of data, instrument of the study, method for collecting data, and the last is statistical design.

Chapter IV presents the result of data analysis and the discussion of research finding.

Chapter V, presents conclusions of the study and provides suggestion.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter contains three main sub-chapters. The first is review of previous studies presenting some similar studies that have been conducted before. Next, the second part is theoretical background which deals with all review of theories related to the study. The last is framework of the present study containing literature that will be used along the study.

2.1 Review of the Previous Study

There have been a number of researchers conducted some studies related to the use of computer game *"Fast Hands"* in improving English vocabulary mastery.

One of studies was conducted by Zahro" (2010) entitled *The Use of Song Lyrics to Improve Students' Vocabulary of Verb (An Experimental Research at the Eighth Grade Students of MTs Uswatun Hasanah Mangkang Semarang in the Academic Year of 2009/2010)*. This research focused on how to improve the vocabulary mastery of verb at the eighth grade students. The objective of the study is to find out the effectiveness of using song lyrics to improve students" vocabulary of verb for the eighth grade students of MTs Uswatun Hasanah

Mangkang. The population of the research was the eighth grade students of MTs Uswatun Hasanah Mangkang. The research methodology was an experimental research, conducted in two classes; the experimental group (VIIIA) and control group (VIII B) as sample. The VIII A was taught by using song lyrics, while the VIII B was taught without song lyrics (using conventional method). The instruments used to collect the data were: documentation and test. The documentation was used to get the data of students" name list that become respondents, lesson plan, etc. Test was used to know students" competence before and after the experiment run. There are two kinds of test. They are pre-test and post test. Before items of the test were given to the students, the writer gave tryout test to analyze validity, reliability, difficulty level and the discriminating power of each item. After the data had been collected by using test, it was found that the pre- test average of the experimental group was 49.20 and control group was 51.00. While, the post-test average of the experimental group was 68.00 and control group were 63.60. The obtained t-test was 1.855, whereas the t-table was 1.68 for a = 5%. The t-test score was higher than the t-table (1.855 > 1.68). It was meant that Ha was accepted while Ho was rejected. Since t-test score was higher than the t-table, Song Lyrics were effective media in improving students" vocabulary of verb at the eighth grade of MTs. Uswatun Hasanah Mangkang Semarang in the academic year 2009/2010.

Another previous study related to this research was conducted by Sulistiyani (2010) entitled *Improving Students' Vocabulary Through Computer media (ATM 5 Programme) (Study Case: SMUN 6 Tangerang of the 2009/2010*

Academic Year). This research focused on how to improve the vocabulary mastery of the grade XI students. There are some significances of this study, which could hopefully benefit the readers. This study is aimed at helping the English teachers improve the students` Vocabulary skill, providing the teachers of SMU NEGERI 6 TANGERANG with information how to teach Vocabulary through computer media (ATM 5 Programme). This study is also expected to be a reference for readers, particularly for those who are interested in conducting further research on the same subject. In addition, the writer conducted a field research, via action research to obtain the information on the effectiveness of computer media (ATM 5 Programme) in improving the students` vocabulary skill. In this regard, she conducted her field research at SMU NEGERI 6 TANGERANG. She taught vocabulary using computer media (ATM 5 Programme) to the 2nd year students of SMU NEGERI 6 TANGERANG students from XIA-3 class. The number of the student is 37, all of whom would be the subject of the writer"s research. The writer analyzed the data collected from her research using qualitative method and descriptive statistics. Finally, the result of this research shows that the mean of the second cycle (91) is higher than the mean of the first cycle (86) and pretest (77). Based on the observation sheet, the students were more active and enthusiastic during the teaching-learning process in the second than the first cycle.

Kirti (2013) conducted a research entitled *The Use of Cartoon Pictures to Improve the Vocabulary Mastery of Elementary School Students (The Case of the Fourth Grade Students of Kartoharjo Grabag Magelang State Elementary School in the First Semester in Year 2012-2013)*. His study focused on using cartoon

pictures to improve students" vocabulary mastery. The objective of this study was to find out whether teaching vocabulary using cartoon pictures can improve the students" achievement in vocabulary mastery. In order to achieve these objectives of the study, the writer designed an action research that consisted of two cycles. The subject of this study was the fourth graders of SD Negeri Kartoharjo in the academic year of 2012/2013. The number of the subject was 32 students. There were six meetings during the research. In conducting this research, the writer collected the data through a pre-test, continued with two cycles that was also included the post-test, field notes and then questionnaire. In each cycle, he gave them practices in order to make them more active and be able to achieve the target of the research. The students" achievement was not only about their score but also their attitude and participation during teaching and learning process. The students" achievement was scored in every aspect in detail so that it made the researcher easier to know what aspect should be emphasized in the next cycle. Based on the data analysis from each activity in this research, students show good progress. It can be seen through their attitude and participation during the teaching learning process. The students really enjoyed and were more active in learning using cartoon pictures and having the discussion. Based on Depdikbud criteria, the result of the pre-test is considered as unsuccessful since there was only 59.4%. However, it increased in cycle 2 that reached 81.25% . It would be concluded that there was a significant improvement of the students" achievement in the pre-test and post-test.

Next, Astuti (2014) conducted a classroom action research about *The Use of Cooking Academy Game to Enrich Vocational Students' English Vocabulary (A Classroom Action Research at the Tenth Grade Students of SMK N Mojosongo in the Academic Year of 2012/2013)*. Her study focused on using Cooking Academy Game to enrich students" vocabulary mastery. This is a classroom action research aiming at finding out to what extent Cooking Academy, a cooking simulation game created by Fugazo, Inc., enriches vocational students" vocabulary dealing with cooking. She founds that the students of *Teknologi Pengolahan Hasil Pertanian* (TPHP) or Technology of Processing Agriculture Produce class" main problem in mastering and using English was vocabulary. Thus, she expected that Cooking Academy game might enrich their vocabulary. The participants of this research were 32 tenth graders majoring in TPHP of SMK N 1 Mojosongo in the academic year of 2012/2013. The method of collecting data in this research was mixed-method using qualitative data and supported by quantitative data. The participants were given materials dealing with vocabulary used in cooking activities. There was one cycle in this research which was conducted in six meetings of 7 x 45 minutes including pre-test, activity 1, activity 2, quiz 1, quiz 2, post-test, and questionnaire. The instruments used were field note, questionnaire, and tests including quizzes, pre-test and post-test. Quizzes were used to find out new vocabulary the students acquired. While pre-test and post-test were used to find out to what extent Cooking Academy game enriched the students" vocabulary. According to the analyses, the pre-test mean was 42.30, while the post-test mean was 78.95. Between pre-test and post-test, they were given two

quizzes, quiz 1 and 2 with the mean of 84.84 and 86.09 respectively. The students" participation and attitude during the treatment showed that they appreciated the Cooking Academy game she used in the teaching and learning process. Based on the results, it could be concluded that there was an improvement of the students" score at 86.6%. So, the Cooking Academy game enriched the vocational students" vocabulary dealing with cooking.

Etikasari (2014) conducted a research entitled *Group Guessing as a Vocabulary Learning Technique to Enrich Students' Vocabulary (A classroom Action research to Students of XI IPA 3 of SMA N 1 Wonosobo in the Academic Year of 2102/2013)*. This study was conducted due to the fact that many high schools students often met unknown words in English texts. One of strategies that they frequently used to deduce the words" meanings was guessing. Unfortunately, this strategy was not commonly encouraged to be used by students to overcome such kind of problem in their reading. This study dealt with the implementation of Group Guessing as a vocabulary learning technique in which students, in groups, had to guess the meanings of some words by analyzing the words" parts and context. The participant of the study was 32 students of class XI IPA 3 in the academic year of 2012/2013 of SMA N 1 Wonosobo. Meanwhile the objective of the study was to find out to what extent Group Guessing enriched students" vocabulary. To meet the research objective, the research was designed mainly according to action research design, and a framework of action research proposed by Phillips and Carr (2010) named Integrated Action. The research was conducted in seven meetings which cover initial observation, pre-test, four Group Guessing

practices in three research cycles, and post-test. The instruments used were pre-test, post-test, Group Guessing worksheet, field note, audio recording, and questionnaire. The results of pre-test and post-test were compared to find out to what extent Group Guessing enriched the participants" vocabulary. Meanwhile, data from other instruments were analyzed to figure out how Group Guessing enriched the participants" vocabulary and the technique"s strength and weaknesses. The data analysis showed that the average score of pre-test was 44.7 while that of post-test was 77. Thus, the participants" vocabulary was improved by 32.2 (72%). During the treatment of the study, the participants" guessing skill gradually got better. The average scores for the first, second, third, and fourth Group Guessing were 68.8, 75.4, 76.4, and 83.3 respectively. They also showed active participation and positive attitude toward Group Guessing for all four practices.

Furthermore, Sanchez (2006) conducted a research entitled *Enhancing Vocabulary Acquisition Through Synthetic Learning Experiences: Implementing Virtual Field Trips into Classroom*. Her study focused on enhancing vocabulary acquisition using synthetic learning experiences. It was aimed to enhancing vocabulary acquisition of the students by implementing virtual field trips into classroom. Participants in this research were recruited from nine second grade classrooms of a large southern elementary school immediately following the 4th week of classes at the beginning of an academic year. Participants included 105 parents and 123 students enrolled in 2nd grade. Student participants included 61 males and 62 females ranging from ages six to seven. Each of the nine classrooms

was randomly assigned into one of two groups: control and experimental. All participants were treated in accordance with the "Ethical Principles of Psychologists and Code of Conduct" set forth by the American Psychological Association (1992). The results in this research did not indicate significant vocabulary acquisition on a series of 3 vocabulary tests; students who used the VFT did use significantly more words in a post exposure writing sample than students in the story group indicating an increase of words known at a level of depth sufficient to warrant their use in a writing sample. Students who used the VFT also reported increased motivation to use SLEs like the VFT for future learning objectives and that VFTs were fun. Findings related to the self-efficacy of students as measures immediately following each vocabulary test did not reveal a significant increase for VFT users. Students using the VFTs did not report learning more words than those students assigned to the story group. Limitations of the current study and directions for future research are discussed.

D"Alesio, Scalia, and Zabel (2007) conducted a research entitled *Improving Vocabulary Acquisition with Multisensory Instruction*. They focused on improving vocabulary mastery using instruction. The purpose of this action research project was to improve student vocabulary acquisition through a multisensory, direct instructional approach. The study involved three teachers and a target population of 73 students in second and seventh grade classrooms. The intervention was implemented from September through December of 2006 and analyzed in January of 2007. The goal was to gather evidence of a marked improvement in the number of vocabulary words that students recognize,

understand, and use. Pre and posttests gathered data on student knowledge of fifty key content area vocabulary words. Three interventions based on brain research were implemented: specially designed graphic organizers, classical music, and Brain Gym® exercises. The gathered data indicates that students clearly understood and could define over five times as many words after this intervention (from 378 words to 1,941 words). The project results show that a multisensory, direct instructional approach improves student vocabulary acquisition. Educators need to increase their knowledge of brain research and implement direct instruction of vocabulary through the use of multisensory methods.

There are differences between these researches above and this research. This research is about applying Computer Game *"Fast Hands"* to improve students‟ vocabulary mastery, whereas, most researches above were about applying Song Lyrics, Computer Media (ATM 5 Programme), Cartoon Pictures, Puppet, Virtual Field Trips, and Multisensory Instruction. The writer uses computer game *"Fast Hands"* to improve students' vocabulary mastery because this game is very interesting and many categories of vocabulary are contained in this game. Finally, the researcher decides to use computer game *"Fast Hands"* in this research because so far there are not many researchers using this medium in improving vocabulary mastery.

2.2 Review of the Theoretical Study

The theoretical background in this study includes the general concept of vocabulary, computer game, and teaching vocabulary by using computer game *"Fast Hands".*

2.2.1   General Concept of Vocabulary

2.2.1.1 Definition of Vocabulary

Vocabulary is the first thing we have to know if we want to learn a language. In order to know what vocabulary is, the writer makes a list of some definitions of vocabulary:

1)   Based on Oxford Advanced Dictionary written by Hornby (1995:1331), the definition of vocabulary are:

-      the total number of words in a language

-      all the words known to a person or used in a particular book, subject, etc

-      a list of words with their meaning, especially one that accompanies a textbook in a foreign language.

2)   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)."

3)   Kamil and Hiebert (2005:3) defines vocabulary as "the knowledge of meanings of words."

4) According to McCarthy (1990:32), vocabulary can be defined as "words in a specific language or freestanding items of language that have meaning."

5) Andrew Biemiller and Catherine Boote (2006:44) define vocabulary as "a powerful predictor of reading comprehen- sion."

6) Linse (2006:121) defines vocabulary as "the collection of words that an individual knows."

From the definitions above, the writer defines vocabulary as a collection of the words with their meaning that it used to communicate.

2.2.1.2 Types of Vocabulary

Vocabulary is not an optional or unimportant part of a foreign language. Wilkins (1972:111) in Milton (2009:3) stated that without grammar very little can be conveyed, without vocabulary nothing can be conveyed.

According to Kamil and Hiebert (2005:3), generically, vocabulary is the knowledge of meanings of words. They divide words into two forms: *oral* and *print*. Oral vocabulary is the set of words for which we know the meanings when people speak or read orally. Print vocabulary consists of those words for which the meaning is known when people write or read silently.

Moreover, Kamil and Hiebert said that knowledge of words also comes in at least two forms, *receptive vocabulary* and *productive vocabulary*. Productive

vocabulary is the set of words that an individual can use when writing or speaking. They are words that are well-known, familiar, and used frequently. Conversely, receptive vocabulary is that set of words for which an individual can understand and recognize meanings when listening or reading. These are words that are often less well known to students and less frequent in use.

2.2.1.3 Elements of Vocabulary

In learning and understanding vocabulary more deeply, it is necessary to understand elements of vocabulary. They are presented in the following explanation.

1)   Word-formation

According to McCarthy (2003: 3), when people speak of the vocabulary of a language they are speaking primarily, but not exclusively, of the *words* of that language. Thinking of words as freestanding items of language that have meaning is most convenient here. An English word „cooking" is freestanding itself. Within that word, it has another potentially freestanding element „cook" which is independently meaningful. The second element „-ing" is also meaningful but *bound*, not freestanding. There is an English word „cook", but there is no English word „-ing". The two meaningful parts of „cooking" are called morphemes; therefore it can be said that a word must consist of at least one potentially freestanding morpheme.

2)   Idiom

There are three types of unit in the vocabulary of a language like English: basic roots (e.g.: plate), derived words (e.g.: defrost), and compounds (e.g.: eggroll). However, when looking at written and spoken texts in English, there are a large number of recurring fixed forms. They consist of more than one word yet which are not syntactically the same as compound (McCarthy, 2003: 6). One familiar type of fixed form is the *idiom*. For example: an idiom „to see the light" has a meaning „to understand", „it goes without saying" means „suddenly", etc.

3)   Collocation

Another binding force between the words of a language which is distinct from the fixed syntax of idioms and other phrases is called *collocation* (McCarthy, 2003: 12). As has been stated in Chapter 1, the example of it is a word „beige" collocates with „car", and a word „blond" collocates with „hair". According to McCarthy

(2003: 12) the relationship of collocation is fundamental in the study of vocabulary. It is a marriage contract between words, and some words are more firmly married to each other than others. English is full of *strong* collocational pairs; the relationship between „blond" and „hair" is the example (given the word „blond", people will only consider to the word „hair"). However, there is also a *weak* relationship. It happens when there is an English word which may combine with a large number of other words. A word „brown" for instance, it can be collocated with „hair", „car", „skirt", etc.

4)   Homonyms

We have seen how *like* and *like* can be two quite different words: I *like* looking ... look *like* new. Words that share the same form but have unrelated meanings are called **homonyms** (Thornbury, 2002: 8). He also said that another potential source of confusion are the many words in English that sound same but are spelt differently: *horse* and *hoarse*, *meet* and *meat*, *tail* and *tale*, *discrete* and *discreet*, *aloud* and *allowed*. These are called **homophones** (literally „same sound"). There are also words that are pronounced differently but spelt the same: *a windy day*, but *a long and windy road*; *a live concert*, but *where do you live?*; *a lead pipe*, but *a lead singer*. These are called **homographs** (literally „same writing").

5)   Polysemes

According to Thornbury (2002: 8), As if homonyms, homophones and homographs weren"t enough, another potential source of confusion for learners – and a challenge for teacher – is the fact that very many words in English have different but overlapping meanings. **A polyseme** is a word or phrase with multiple meanings. For example the verb "to get" can mean "procure" (*I'll get the drinks*), "become" (*she got scared*), "understand" (*I get it*). Etc.

6)   Synonyms and Antonyms

Synonyms are words that share a similar meaning. Thus: *old*, *ancient*, *antique*, *aged*, *elderly* are all synonyms in that they share the common meaning of not young/new. Besides that, Words with opposite meaning – like *old* and *new* – are called **antonyms**.

7)   Hyponyms

Hyponym is a word whose meaning is included in the meaning of another more

general word; for example, *bus* is a hyponym of *vehicle*. According to Thornbury

(2002: 9), **Hyponym** is another –nym word that is useful when talking about the

way word ,eanings are related.

2.2.1.4 *Teaching and Learning Vocabulary*

Learning vocabulary is an important instructional aim for teachers in all content

areas in middle grades schools (Harmon, Wood, & Kiser, 2009) in Bintz (2011).

According to Kammeenui (1991) in Bintz (2011),

> Learning vocabulary is fundamentally about learning definition of words.
> Many teachers believe that defining words before reading a text is an
> effective instructional technique to support vocabulary growth and
> enhance reading comprehension; however, research indicates otherwise.
> For example, the popular practice of requiring students to find definitions
> of words and write those words in sentences before reading appears to
> have little apparent impact on their word knowledge and language use, and
> has not improved student comprehension of texts that contain those words.

On the other hand, teaching vocabulary is one of the least efficient ways of

developing learners. There are some steps in teaching vocabulary. Hatch and

Brown (1995) in Cameron (2001:84) describe five essential steps in vocabulary

learning based on research into learners‟ strategies. They are (1) having sources

for encountering new words; (2) getting a clear image, whether visual or auditory

or both, for the forms of the new words; (3) learning the meaning of the words;

(4) making a strong memory connection between the forms and meanings of the words; and (5) using the words. Besides, Learning vocabulary is a process that always continues. Cameron (2001:84) states,

> Vocabulary needs to be met and recycled at intervals, in different activities, with new knowledge and new connections developed each time the same words are met again. Looking at the five steps, we can see that each step is in fact something that needs to happen over and over again, so that each time something new is learnt, or remembered.

According to Nunan (2003:135-141), principles for teaching vocabulary are:

1. **Focus on the most useful vocabulary first.**

   Some words can be used in a wide variety of circumstances. Others have much more limited use. For example, the word *help* can be used to ask for help, to describe how people work with othera, to describe how knowledge, tools, and materials can make people‟s work easier and so on. The word *advertise* has much more limited usefulness. It is still a useful word to know, but there are many more useful words to learn before this one. Teaching useful vocabulary before less useful vocabulary gives learners the best return for their learning effort. The most useful vocabulary depends on the goals of the learners. If learners want to do academic study in senior high school or university, the the Academic Word List (Coxhead, 2000) is the most useful vocabulary to learn. As well as Academic Word List words, each subject has its own special technical vocabulary, which needs to be learned while studying

subject. Beyond that, the rest of the vocabulary is **low frequency words**. At the most conservative estimate, English contains 120,000 low frequency words and thiis largely excludes proper noun. Learners need to learn low frequency word but, except for special need, they are best learned afther **high frequency words** are know.

2. **Focus on the vocabulary in the most appropriate way.**

This principle looks at how they should be taught and learned. Here we will look at the four most important vocabulary learning strategies of using word parts, guessing from context, using word cards, and using dictionaries. Using word parts to help remember words, and using guessing from context are two important strategies for dealing with low frequency words. There are two more very important strategies-using word cards for deliberate learning, and looking up words in dictionaries. Using word cards involves making small cards and writing the English word on one side and the first language translation on the other. These cards are kept in packs of about fifty and are looked at when the learner has a free moment, while travelling on the subway, waiting for a bus, or during TV commercials. It may seem surprising to recommend using first language translation and deliberate, decontextualized learning. The use of the first language helps because it provides the meaning in a sample, clear, and comprehensible way. Learning from word cards ia a very unfashinable technique (among teachers wedded to a

communicative approach) but research (Nation, 2001) has shown it to be very effective. Learning how to use a dictionary well is another important strategy in which many learners require and practice. So far we have looked at waysbof helping learners with low frequency words. High frequency are so important that anything the reader can do to help in learning them is a well-justified use of classroom time. This includes

a) directly teaching high frequency words

b) getting learners to read and listen to graded readers containing these words

c) getting learners to study the words and do exerciss based on them

d) getting learners to speak and write using the wors

3. **Give attention to the high frequency words across the four stands of a course.**

High frequency vocabulary needs to occur in all four standards of a course. It should get deliberate attention through teaching and study and should be met and used in communicating messages in listening, speaking, reading, and writing. High frequency vocabulary should also be fluently accessible for receptive and productive use.

4. **Encourage learners to reflect on and take responsibility for learning.**

So far we have looked at principles that relate to choosing what vocabulary to teach and the conditions needed for learning it. These is an

important principle that lies behind choosing and learning and that is that learners need to realize that they must be responsible for their own learning. Taking this responsibility requires (1) knowledge of what to learnd and the range of options for learning vocabulary, (2) skill in choosing the best options, and (3) the ability to monitor and evaluate progress with those options. Unless learners take control, the course will not be as effective for them. Teachers can help them do this in the following ways:

1. Inform the learners of the different types of bocabulary.

2. Train the learners in the various way of learning so that they are very familiar with the range of learning options available for them.

3. Provide genuine opportunities for choosing what to learn and how to learn.

4. Provide encouragement and opportunity for learners to reflect on their learning and to evaluate it.

These ways includes a mixture og informing, training, and encouraging reflection; or in other words, knowledge, skill, and awareness.

Based on the explanation above, it can be concludes that in order to have strong memorization of new words, learners need to meet the words they learn again and again then practice to use them both in spoken or written form.

2.2.1.5 Strategy in Teaching Vocabulary

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 basic techniques by which teachers can explain the meanings of new words. They are:

By demonstration or pictures

(1) using an object

(2) using a cut-out figure

(3) using gesture

(4) performing an action

(5) photographs

(6) drawing or diagrams on the board

(7) pictures from books

(to these we might add moving images, from TV, video or computer)

By verbal explanation

(8) analytical definition (as in the teacher‟s description of *protractor,* on page 76, lines 6 and 7)

(9) putting the new word in a defining context (e.g. an *ambulance* takes sick people to hospital)

(10) translating into another language

According to Thornbury (2002:144), there are some methods to train good vocabulary learners. Those methods are explained below:

(1) Learner training

Teacher can play a major role in motivating learners to take vocabulary seriously.

(2) Using mnemonics

The best-known mnemonic technique is called the keyword technique. This involves devising an image which typically connects the pronunciation of the second language word with the meaning of a first language word.

(3) Word cards

Teachers have to ask learners to produce their word card sets and invite them to comment on their usefulness, how many words they have learned, and how often they reviewed them.

(4) Guessing from context

Some experts argued that learners need certain numbers of vocabulary to learn a new language. However, no matter how many words learners acquire, they will always find some unfamiliar words in their reading and listening. This is why they need to guess the meaning of unknown words.

(5) Coping strategies for production

This method is used when learners have to produce a sentence or a paragraph in a second language both in oral or written form. The aim of this method is to fill the gap of unknown words with vague terms, such as, *whatsit, a sort of, a kind of,* etc.

(6) Using dictionaries

Dictionaries can be used as a last resort when "guessing from context" strategies fail. They help learners both to produce a text or find the meaning of unknown words.

(7) Spelling rules

It is important for learners to check spelling, since spelling in English is very problematic. There is often more than one way of spelling a sound, and more than one way of pronouncing a letter. Dictionaries can be used to check a correct spelling.

(8) Keeping records

Learning a new word is not instantaneous. It requires repeated visits and conscious study. Learners have to study and revisit vocabulary outside the class because there is not enough time in class for review and recycling. This means that learners will have to depend to a large extent on their own vocabulary records.

(9) Motivation

Language teachers must arouse their students" interest in words and make the students excited in learning words.

Based on the techniques listed above, we know that there are so many techniques can be used to teach and learn vocabulary. In this study, computer game *"Fast Hands"* is chosen as a strategy in teaching vocabulary because it is proved can increase students" achievement in learning English. Therefore, the

writer conducts an experimental study to find out the effectiveness computer game *"Fast Hands"* to improve students‟ vocabulary mastery.

2.2.2   Computer Games

The *"Fast Hands"* game used in this research is a portable computer game. Therefore, computer games in vocabulary learning and *"Fast Hands"* game itself would be discussed in this section.

2.2.2.1 Definition of Computer Game

According to Prensky (2001:118), game can be defined as "seen as a subset of both play and fun." A game is recognised as organised play that gives us enjoyment and pleasure (Prensky 2001).

Prensky (2001:118-119) stated that computer games can be characterised by six key structural elements which, when combined together, strongly engage the player. These elements are rules, conflict/competition/challenge/opposition, goals and objectives, interaction, outcomes and feedback, representation or story.

Game types include action games, adventure games, fighting „beat „em up‟ games, plat formers (where game characters run and jump along and onto platforms), knowledge games, simulation/modeling/role-playing games such as management and strategy games, drill-and-practice games, logical games and math games. Game play can be competitive, cooperative or individualistic.

2.2.2.2 The Use of Computer Game as a Media in Teaching and Learning

Game can be classified as one of the media that is familiar with youth people and can be used for teaching and learning process. It can be one of solutions of teaching and learning method‟s matter that computer game can also be a medium for student to learn something. Learning something with playing can be very interesting for students; they can learn something with a fun and enjoyable way. It can reduce the students‟ boredom when they were taught by conventional way.

Yet, the use of computer game has both negative and positive effects on young people. Alice Mitchell and Carol Savill-Smith in their review of the literature „The Use of Computer and Video Game for Learning‟ (2004:13-14), state that "Frequent gaming has both negative and positive effects on academic performance."

On the one hand, frequent players are less positive towards school. Frequent gaming reduces the time available for homework, which can negatively affect academic performance.

On the other hand, there are signs that game playing can actually benefit school performance. It helps the students adjust to a computer-oriented society. In action and adventure computer games, images tend to be more important than words; this shifts the development of representational skills (ie showing things as they are normally seen) from the verbal to iconic, with players visually manipulating images on a screen in different locations.

2.2.2.3 Computer Game "Fast Hands"

This is a game for learning English focusing on vocabulary items. The player listen to the sound or read the word and then click on the matching pictures. It is really easy, fun and hopefully a great way to learn and review words. The player can choose the content their want to play with and there are more than 500 vocabulary items in total.

First you click on „fast".
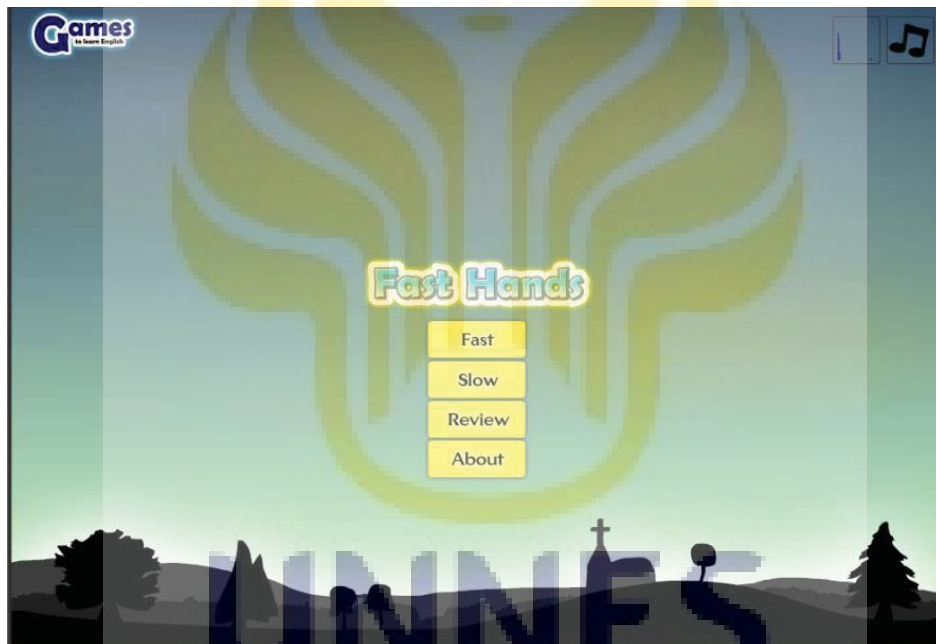
Figure 2.1 First step in playing "Fast Hands"

Then select your vocabulary category.

Figure 2.2 Second step in playing "Fast Hands"

After you select your vocabulary category, then listen or read the word and click on the matching picture. The game finishes when the time bar at the bottom runs out. However, you get extra time added each time you correctly click on an image. The timer goes faster and faster so you need to have fast reflexes.

Figure 2.3 Third steps in playing "Fast Hands"

The same set of ten items will repeat endlessly and you can increase your score with each correct hit. However there is a count down timer that is always decreasing. You get additional time with each correct vocabulary word but the speed of the count down increases constantly so eventually you will run out of time. The challenge is to get as high a score as possible before the game finishes.

There is a high score table at the end which shows the top players and where they come from. At the first screen you get two options either „fast" or „slow". There are the same game only the speed and possible score is different.
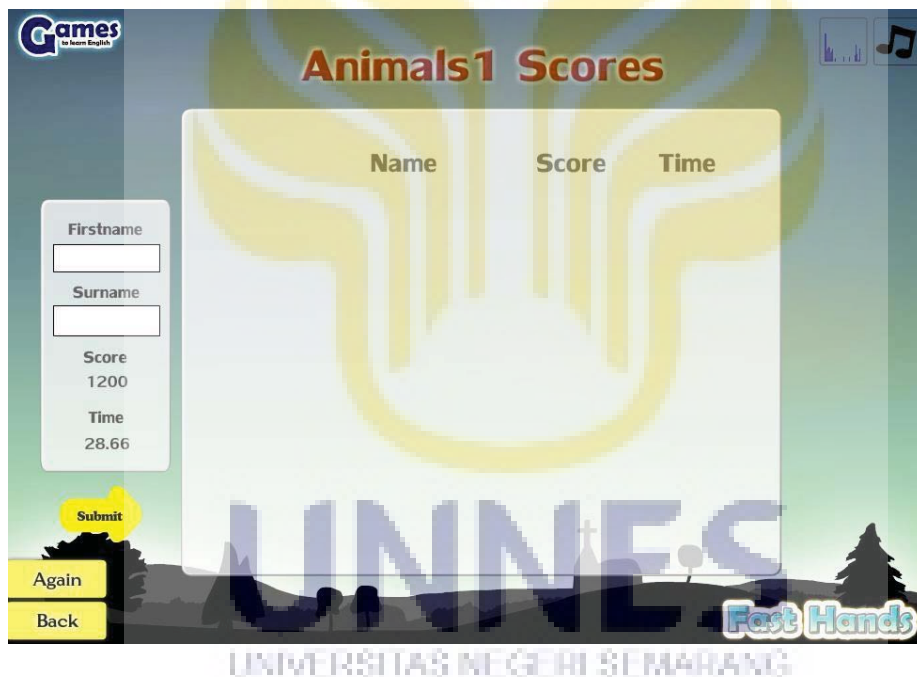
Figure 2.4 Fourth steps in playing "Fast Hands"

2.2.3 Teaching Vocabulary by Using Computer Game "Fast Hands"

As been discussed above that vocabulary is one of the skills that must be mastered by the students. It becomes a challenge for the teacher to motivate their students, so that they will get interested in vocabulary. In order to motivate the students, teachers use various methods to teach vocabulary.

As an effort of finding a new method to teach vocabulary, the writer tries to use medium of computer game *"Fast Hands"*. *"Fast Hands"* is one of computer games to teach vocabulary. There are many categories in this game, for example: animals, sports, jobs, verbs, adjectives, body, furniture, etc.

By using game as a media, it stimulates the students to learn the instruction given by the teacher as they play the game. With the concept of learning while playing, it is hoped that the students will get motivated in teaching learning process because we involve the activity that interesting for them. By using computer game "Fast Hands" the students can improve their vocabulary mastery with fun.

The writer concludes that computer game "Fast hands" is one of fun media that can be used for teachers to teach vocabulary for their students, so they can improve their vocabulary mastery.
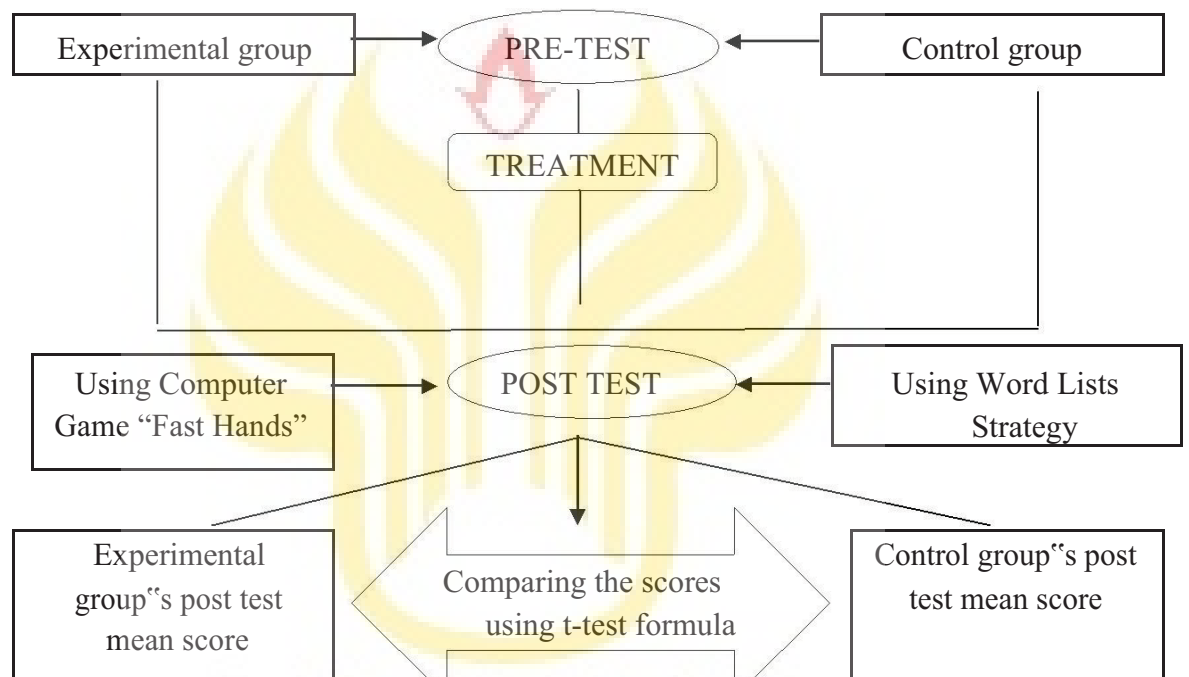
2.3 Theoretical Framework

In conducting the present study entitled *The Effectiveness of Using Computer Game "Fast Hands" to Improve Students' Vocabulary Mastery for Junior High School*, the writer concerns the students` vocabulary achievement. In her study, she uses a quasi-experimental design. A quasi-experimental design is a type of evaluation which aims to determine whether a program or intervention has the intended effect on a study is participants. There are two kinds of quasi-experimental studies. There are: a pre-post test design study without a control group and a pre-post test design with a control group. In her study, she uses a pre-post test design with a control group. She divides the subject of the study into two groups, experimental group and control group. In experimental group, she teaches students by computer game *"Fast Hands"*, while in control group, she teaches the students by wordlist strategy.

When conducting the study, the writer designs vocabulary test as the main instrument to collect the data between both groups and to compare the effectiveness of computer game "Fast Hands" and wordlist strategy in improving students` vocabulary mastery.

Before the writer gives a treatment, the pre test is given for both groups to measure students" basic ability on vocabulary achievement. After giving the treatment, she gives post test in both groups to measure the significant differences of students` vocabulary achievement between experimental group and control group.

After finding the result of the test, the writer calculates the computation of the mean score using the t-test formula. The mean scores are compared in order to know whether there is a significant difference between pre-test and post test between the two groups or not.

The theoretical framework of the present study visualized below:

Figure 2.5 Theoretical Framework

CHAPTER V

CONCLUSION AND SUGGESTIONS

This chapter deals with conclusion of the research based on the result of the experiment and the suggestions for education field, teachers, students, and the other researchers.

5.1   Conclusion

This research was conducted on the purpose to find out whether computer game "Fast Hands" effectively improves students" vocabulary. In other words, it was conducted to find out whether or not computer game "Fast Hands" gives improvement of students" vocabulary mastery compared to the Word Lists Strategy.

Based on the result of the experiment, there are some conclusions. Firstly, there is a significant difference in students" improvement of vocabulary mastery between those who were taught by using computer game "Fast Hands" and those who were taught by using Word Lists Strategy for the eighth grade students of SMP Negeri 1 Muntilan in the academic year 2014/2015.

Secondly, the use of computer game "Fast Hands" is more effective in enhancing students" vocabulary compared to Word Lists Strategy. It can be seen from the computation on the previous chapter which showed that the t-value is higher than the t-table on the 5% alpha of education and 40 degrees of freedom (2.237>2.015). It means that the students" vocabulary mastery on the experimental

group is better than the control group which shows the effectiveness of the treatment given to the experimental group compared to the treatment given to the control group.

5.2 Suggestions

Based on the conclusion above, the writer offers some suggestions. Firstly, for the education field, the writer hopes that this study can provide knowledge and information in using computer game "Fast Hands" for teaching and learning practice especially in enhancing students" vocabulary.

Secondly, for teachers, since teaching vocabulary for foreign students is uneasy to do, teachers should find out effective and interesting technique, method, or medium in order to avoid the students" boredom in the learning process. Teachers can use computer game "Fast Hands" since this technique gives more effective result compared to the Word Lists Strategy.

Thirdly, for students, learning vocabulary is very important when learning a language. Therefore, students have to increase their vocabulary if they want to master their English. They can learn many vocabularies from dictionary, read many texts, or engage in an activity which provides interesting technique, method, or media that can effectively build their vocabularies.

Lastly, for the other researchers, the writer expects that there will be many researchers who are interested in conducting a research to enhance students" vocabulary using media especially computer game."Fast Hands". For this reason,

the researchers can use this research as one of many sources and information in conducting their research.

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