

# THE USE OF FLASH GAME AS A MEDIA TO IMPROVE STUDENTS VOCABULARY (A Case of Year Seventh Students of SMP N I Kaliwungu)

A final project

Submitted in partial fulfillment of the requirements for the degree of *Sarjana Pendidikan* in English

> by GALUH HAPSARI MUTU MANIKAM 2201906004

ENGLISH DEPARTMENT FACULTY OF LANGUAGES AND ARTS SEMARANG STATE UNIVERSITY

2009

# APPROVAL

The final project was approved by the Board of Examiners of the English Department of the Faculty of Languages and Arts of semarang States University on April 8<sup>th</sup>, 2009.

Board of Examiners:

- 1. Chairperson, Dra. Malarsih, MSn. NIP. 131764021
- 2. Secretary, Drs. Suprapto, M.Hum NIP. 131125925
- First Examiner, Drs. A. Sofwan,Ph.D NIP. 131813664
- Second Adviser as Second Examiner Drs. Amir Sisbiyanto, M.Hum NIP. 131281220
- First adviser as Third Examiner, Dr. A. Faridi, M.Pd NIP. 131876218

Approved by Dean of Language and Arts Faculty

> Prof. Dr. Rustono, M. Hum NIP. 131281222

# PERNYATAAN

Dengan ini saya:

Nama	: Galuh Hapsari Mutu Manikam
Nim	: 2201906004
Prodi/Jurusan	: Pendidikan Bahasa Inggris
Fakultas	: Fakultas Bahasa dan Seni, Universitas Negeri Semarang

Menyatakan dengan sesungguhnya bahwa skripsi / tugas akhir / final project berjudul:

# "The Use of Flash Game as a Media to Improve Students Vocabulary (A Case of Year Seventh Students of Junior High School of SMP N1 Kaliwungu)"

Saya tulis dalam rangka memenuhi salah satu syarat untuk memperoleh gelar sarjana ini benar – benar merupakan karya saya sendiri yang saya hasilkan setelah melakukan penelitian, pembimbingan, diskusi dan pengarahan / ujian.

Semua kutipan baik yang langsung maupun tidak langsung, baik yang diperoleh dari sumber kepustakaan, wahana elektronik, wawancara langsung maupun sumber lainnya dengan cara sebagaimana yang lazim dan penulisan karya ilmiah.

Dengan demikian walaupun tim penguji dan pembimbing skripsi / tugas akhir / final project ini membubuhkan tanda tangan sebagai keabsahannya, seluruh isi karya ilmiah ini tetap menjadi tanggung jawab saya sendiri. Jika kemudian ditemukan pelanggaran terhadap konvensi tata tulis ilmiah yang berlaku, saya bersedia menerima akibatnya.

Semarang, .... Maret 2009 Yang membuat pernyataan

Galuh Hapsari Mutu Manikam NIM. 2201906004

iii

# MOTTO and DEDICATIONS

"Put first thing first, seek first to understand and then to be understood" (Stevan Covey)

- To :
- My beloved father and mother,
   who give me a lot of support,
- My beloved brother and his wife,
- My beloved Chunkrinx for his motivation
- My friends (kelompok sirkus), who have shared joy, laugh, love and sadness.

## AKCNOWLEDGMENT

Firs and Foremost, Alhamdulillahirobbil 'alamin, the writer would like to express her highest gratitude to Allah SWT, for the endless blessing and mercy given to her every time, especially during the preparation of her final project.

The writer also wants to give her deepest appreciation to Dr. A. Faridi, MPd as the first advisor and Drs. Amir Sisbiyanto, M.Hum as the second advisor, for their patience, valuable guidance, encouragement and time in accomplishing her final project.

Her special honor goes to all lectures of English Department of Unnes, for their lesson and lecturers during her study, her sincerest thanks also fall to SMP Negeri 1 Kaliwungu for giving her permission to conduct research on that school.

However, the writer is greatly indebted for her mother, father, brother, and big families who always give prayer and powerful support for her success. She also wishes to give her deepest grateful to her beloved one "Andri Prasetyo" who always gives her worthy advice and motivation.

Last but not least, the writer would like to give her earnest thanks to all her friends (Kelompok sirkus) for their support and affection during her study.

There is no perfect thing in the world and this final project is no exception. The writer hopes that the result of this final project will be useful for anyone who needs it.

Semarang, ...., Maret 2009

Galuh Hapsari Mutu Manikam NIM. 2201906004

## ABSTRACT

Mutu Manikam, G. H. 2009. The Use of Flash Game as A Media to Improve Students Vocabulary (A Case of Year Seventh Students of SMP N I Kaliwungu). Final Project. English Department. S1 Degree of Education. Advisors: I. Dr. A. Faridi, MPd., II. Drs. Amir Sisbiyanto, M.Hum.

# Key words: Flash game, Vocabulary, year seven students of Junior High School.

Vocabulary is a sum or stock list of word employed by a language group, individual or in relation, to be a subject. In language teaching to improve students' vocabulary mastery, the term vocabulary covered the development of words, the meaning and the links between them. In teaching vocabulary, teacher should consider some principles that are aims, quantity, need, frequent exposure and repetition, meaningful presentation, and situation presentation. Flash game is a game in which the object is for one player to perform any kind of pictures along with the questions available.

The problem discussed in this study is whether teaching vocabulary by using Flash game is effective or not for students of Junior High School. Therefore, the objective of the study is to find out whether teaching vocabulary using Flash game is effective or not for student of Junior High School.

In this study, the population was the year seven students of SMP Negeri I Kaliwungu in the 2008/ 2009 academic year. The number of population was 309 students classified into 8 classes. In taking the sample, I use simple random sampling. I choose 40 students out of 309 students, whereas 40 students from class E. For this class, I divided into two groups; 20 students is control group and 20 students for experiment group.

Before conducting the research in SMP N I Kaliwungu, the instrument had been tried out first in different class to find the validity, reliability, item difficulty, and discriminating power. Then I began the research by giving a pre-test to the students. After that, the treatments were given to them. The activity is continued by answering formative test for each treatment. At the end of the research, I gave a post-test to them.

The mean of post test 80.5 were higher than the mean of the pre test 68.8. It can be concluded that the students' achievement in learning vocabulary through Flash game had a significant improvement. Therefore, the technique of teaching vocabulary by using Flash game presented in this study was proved effective. Based on this conclusion, the suggestion given is that the English teacher may teach vocabulary using game especially Flash game as the media.

# **TABLE OF CONTENTS**

Acknowledgment	v
Abstract	vi
Table of Contents	vii
List of Table	ix
List of Appendices	x

# Chapter

1.	INTR	ODUCTION	1
	1.1	Background of the Study	1
	1.2	Reason of Choosing the Topic	6
	1.3	Statement of the Problem	6
	1.4	Objective of the Study	7
	1.5	Significance of the Study	7
	1.6	Organization of the Study	8
2.	REVI	EW RELATED TO LITERATURE	9
	2.1	General knowledge of Flash Game	9
		2.1.1 The Advantage of Using Flash	11
	2.2	Teaching English to the Junior High School	12
	2.3	Teaching Vocabulary to the Year Seven Students of Junior High	
		School	13
	2.4	General Knowledge of Vocabulary	16
		2.4.1 Definition of Vocabulary	16

		2.4.2 Types of Vocabulary	17	
		2.43 Principles of Teaching Vocabulary	18	
	2.5	Technique of Teaching Vocabulary to the Year Seven Students of		
		Junior High School	20	
	2.6	Teaching Vocabulary Using Media	22	
	2.7	Flash Game As a Media in Teaching Vocabulary	25	
	2.8	Steps of Playing Flash Game	26	
3.	METH	IOD OF INVESTIGATION	29	
	3.1	Main Source of Data	29	
	3.2	Subject of the Study	30	
		3.2.1 Population and Sample	30	
		3.2.2 Sampling Technique	31	
	3.3	The Experimental Design	31	
	3.4	Procedure of the Experiment		
		3.4.1 The Activities of the Experimental Groups	33	
		3.4.2 The Activities of the Control Group	34	
	3.5	Variables	35	
3.6 Instrument		Instrument	35	
		3.6.1 Constructional of the Instrument	36	
	3.7	Construction of the Test	37	
	3.8	Try out	38	
	3.9	Condition of the Test	38	
		3.9.1 Validity of the Test	38	

		3.9.2	Reliability of the Test	39
	3.10	Item of Analysis		
		3.10.1	The Difficulty Level of the Test	41
		3.10.2	Discriminating Power	41
	3.11	Metho	od of Collecting Data	43
	3.12	The A	nalysis of Pre-test and Post-test	44
		3.12.1	Pre-test	44
		3.12.2	Post-test	44
		3.12.3	Analyzing	45
	3.13	Grade	of Achievement	46
4. RESULT OF THE INVESTIGATION			THE INVESTIGATION	47
	4.1	Try-Out Findings		47
		4.1.1	Validity	47
		4.1.2	Reliability	47
		4.1.3	Item Analysis	48
			4.1.3.1 The Level Difficulty	48
			4.1.3.2 The Discriminating Power	48
	4.2	Significance Different between Two Means		49
	4.3			53
	4.4	Differe	ence of Average Scores (Mean) between the Experimental a	and
		the Control Group		
	4.5	Discus	sion of Research Findings	56
	4.6	The A	dvantages and Weaknesses of Using Flash Game	57

		4.6.1	Students' Interest	57
		4.6.2	Automatically	58
		4.6.3	Visualization	58
5	CONC	CLUSSI	ON AND SUGGESTION	59
	5.1	Conclu	ision	59
	5.2	Sugge	stion	60
Bibliography		61		
Appendices			xii	

# LIST OF TABLES

1.	The Table of the Control Group	47
2.	The Table of the Experimental Group	48

# LIST OF APPENDIX

1.	Try-Out Test	61
2.	Try-Out of Item Test	70
3.	The Computation of Item validity	77
4.	The Computation of Item reliability	79
5.	The Computation of Item Difficulty	81
6.	The Computation of the Item Discriminate	82
7.	Pre-Test	83
8.	Post-Test	89
9.	Photos	96
10.	Permohonan Ijin Penelitian	97
11.	Surat Keterangan Selesai Penelitian	98

## **CHAPTER I**

# **INTRODUCTION**

#### **1.1 Background of the Study**

It has been increasingly clear that English in the years ahead will play an important role in communication among various groups or parts of the world. It is not only because of the great number of important countries which have English as the mother tongue and official language of their states, but also because various countries have made English their official language for communication. Even, English has accordingly been chosen as the first foreign language to be taught in some schools in many parts of the world rather than Dutch, Italian, German, or others.

In Indonesia, the government has included English as one of the compulsory subjects in the Curriculum of Sekolah Dasar (Elementary School), Sekolah Menengah Pertama (Junior High School), and Sekolah Menengah Atas (Junior High School).

Hence, the government has arranged a newest program of education that is called Kurikulum Tingkat Satuan Pendidikan (KTSP) 2006. Kurikulum Tingkat Satuan Pendidikan (KTSP) 2006 has a purpose in the teaching learning process. The curriculum is aimed to make students being able in communicating using English in a foreign language. Students are supposed to master speaking and listening despite of mastering reading and writing. To get the purpose, teaching learning process on KTSP 2006 is focused on the production of both language skills that are speaking and listening. It supported by Dinas Pendidikan Nasional Statement in its teaching guidelines that communication covers an understanding and expressing information, thoughts, feeling, and developing, knowledge, culture, and technology by using a languages.

Furthermore, Tarigan (1989:2) stated that "in learning a language students are supposed to master four major skills, they are; listening, speaking, reading, and writing". The aim is to equip the students' ability their skills in English by Emphasizing of the Communication skills in a number of topics relevant to the need of local community and their surrounding.

The three opinions above are explain that students of SMP closely related to the objectives of English teaching at SMP that is students supposed to have the English ability in listening, speaking, reading, and writing based on their development level, interest, the vocabulary, and appropriate structure.

Many people taught that learning English is a problem. The problems are of course, the different from country to country where English has different status. For those who are from countries where English is spoken as the first language don't have difficulties to master the two languages components. On the other hand, people from Indonesia, where English is regarded as a foreign language, have the problems to master the components. As their vocabulary is limited, most of Indonesian students cannot speak and write English. In addition, it is not easy for the students to comprehend a text since their knowledge in grammar and vocabulary is still limited.

Vocabulary is one of the most important language components, which has to be mastered and acquired by the students in learning a new language. By learning vocabulary first, the students will be able to communicate in English.

Whenever we want to communicate with other people using a language we should have mastered a stock of words related to the topic. It is true, however, that whenever we think of language learning, we usually think of mastering the vocabulary. Experienced English teacher knows very well how important vocabulary is.

In this study, however, the writer is interested in vocabulary teaching experiment by using Flash game as a media to the year seventh Junior High School students. Here, the writer focuses on vocabulary teaching since vocabulary is one of the basic components in teaching and learning English. The important task is the teacher should be able to motivate the students to learn and pay attention to the material, which the teacher presents, so they will not get bored. Other words, the teacher are expected to be imaginative and creative in developing their teaching techniques to make English lesson more exciting. As education always walked side by side with psychology, it was better to connect these psychological aspects of the students with their ways of learning a language. It is in line with the statement of Edward Ray Guthrie (1982) as quoted by Bagus (2005: 11) suggested " It is essential that the students are led to do what is to be learned. A student does not learn what was in a lecture or in a book. He learns only what the lecture and book cause him to do. We learn what we do ". They were so much less motivated and they persecuted out right discipline problems.

From the statement above, we know that the students at SMP like to be encouraged to respond to texts and situation with their own thoughts and experience, rather than just by answering questions and doing abstract learning activities. Teacher has to give students task that they are able to do. It is a supporting point for teaching them using Flash games. In addition, it could provide a valuable learning experience in which the students practices and revises language in a meaningful way.

In teaching English to the year VII of Junior High School, teachers have got a challenging task to motivate them. They are expected to be able to make the students motivated and learn English happily. Therefore, the existence of teaching media is important. We hope that by using such kind of media, our children will not be bored and learn English with full of motivation.

Creating motivation in learners of English in Indonesia has always been a difficult task for teachers. Actually, there are several techniques in teaching English as a foreign language to increase the students' motivation to pay attention to instructional material, and thus produce better learning. In many cases the techniques require only a slight change in present procedures in order to function better learning. But it is better still to invent material that brings its own motivation with it. Such material is interesting and challenging and thus gains more attention of the learners.

As English teacher, we should be able to encourage our students to be interested in learning vocabulary. It is a fact that teaching vocabulary is often presented a boring situation. Students are sometimes frustrated with the ability in improving their own vocabulary. Many ways have been tried by the teachers including improved their teaching techniques.

Gerlach and Ely (1980:187–199) discuss about the teaching techniques. They say that techniques are tools for teachers. What they mean by the tools are the ways and the media used by the teachers to direct the learners' activities in order to achieve an objective.

There are some techniques which can help the teachers construct a strategy for teaching such as lecture, discussion, demonstration, and direct experience, visual and audio visual media.

By using flash game as a media will motivate the students to improve their vocabularies. By using flash game, the students will feel enjoy and decrease boredom.

### **1.2 Reason for Choosing Topic**

It is important for the teachers to realize that the learners' ability in understanding English is poor. Many students have little enthusiasm in English classes. Teachers need to motivate the students to create intention.

I have chosen the topic "The Use of Flash Game as Media to Improve Students Vocabulary a case of year VII students of SMP Negeri I Kaliwungu " with the following reasons:

- 1 Students of Junior High School Have problems in mastering the vocabulary items they learn.
- 2 Most of the English teacher does not utilize a game, flash game on computer game in teaching vocabulary.
- 3 To implemented teaching learning process using Flash Game.

## **1.3 Statements of the Problem**

Based on the descriptions above, I consider the following problems will be useful for the discussion of the thesis:

- 1 Is there any significant difference of the vocabulary achievement between the students taught by using Flash Game and those taught by using conventional method for the year VII students of Junior High School.
- 2 Are Flash Games effective media in teaching vocabulary to the year VII students of Junior High School.

## **1.4 Objectives of the Study**

The objectives of the study can be elaborated as follows:

- 1 To explain the use of Flash Game as a Media to Improve Vocabulary for the year VII of Junior High School.
- 2 To investigate whether there is any significant difference in the vocabulary achievements of the students taught by using Flash Game and those taught using conventional method.

# 1.5 Significance of the Study

By conducting this research, hopefully I can give useful contributions in teaching English, especially for:

1. English Teacher of Junior High School

The result of the study will be hopefully useful for English teachers of Junior High School especially in making the students be motivated to learn English and also in improving the result of teaching vocabulary.

2. The students

Techniques that are used in this research can help students to improve their acquisition in vocabulary. They feel enjoy in learning English by playing an educational game like flash game.

# **1.6 Organization of the Study**

The thesis consists of five chapters, namely:

Chapter I provides the background of the study, reason for choosing the topic, the statements of the problems, the objective of the study, the significance of the study, and Organization of the Study.

Chapter II presents review related to literatures that consists of theories underlying the writing of the study.

Chapter III deals with main source of data, research procedure, research variable, and method of collecting data.

Chapter IV deals with the result and dicussion of the research and Chapter V presents conclusion and suggestion.

## **CHAPTER II**

# **REVIEW OF RELATED LITERATURE**

In this chapter, the writer is going to present; General Knowledge of Flash game, Teaching English to the Junior High School, Teaching Vocabulary in Junior High School, General Knowledge of Vocabulary, Technique Teaching Vocabulary to the Junior High School, Teaching Vocabulary Using Media, Flash game as a media teaching vocabulary and Steps of Playing Flash Game.

### 2.1 General Knowledge of Flash Game

Flash technology has become a popular method for adding <u>animation</u> and <u>interactivity</u> to web pages; Flash is commonly used to create animation, <u>advertisements</u>, various web page components, to integrate video into web pages, and more recently, to develop <u>rich Internet applications</u>.

Flash is a set of <u>multimedia</u> technologies developed and distributed by <u>Adobe Systems</u> since December 2005, when Adobe Systems acquired <u>Macromedia</u>. Since its introduction in 1996 (<u>http://www.macromedia.com/software/flash/open/licensing/fileformat</u>).

Flash can manipulate vector and raster graphics and supports bi directional streaming of audio and video. It contains a scripting language called Action script. According to the Computer and Technology Information Dictionary, Flash is link to Macromedia Flash that give definition as a software to create animation needed by internet such as site, advertisement banner, logo animated, and another animation.

Tito Ribero in his book said that Flash is a program which is used to create animation, games, interface web, and interactive animation. (2006: 5)

From the definition above, it can be concluded that Flash is a set of <u>multimedia</u> technologies to create animation. The animation which produced by Flash generally used to make an interactive game. It means that Flash has a function as a game.

Games are a structured <u>activity</u>, usually undertaken for <u>enjoyment</u> and sometimes also used as an <u>educational</u> tool. Games are generally distinct from <u>work</u>, which is usually carried out for <u>remuneration</u>, and from <u>art</u>, which is more concerned with the expression of ideas. However, the distinction is not clear-cut, and many games are also considered to be work or art.

French sociologist <u>Roger Caillois</u>, in his book *Les jeux et les hommes* (*Games and Men*), defines a game as an activity that must have the following characteristics:

- *fun*: the activity is chosen for its light-hearted character
- *separate*: it is circumscribed in time and place
- *uncertain*: the outcome of the activity is unforeseeable
- *non-productive*: participation is not productive
- *governed by rules*: the activity has rules that are different from everyday life

• *fictitious*: it is accompanied by the awareness of a different reality

Students need to have same abilities in using a game. They are forced to spell and memorize the word. In every game, there is always a rule and students have to obey the rule. Before starting a game, the class has to be organized. It means that everything needed to set a game has been well prepared. The required group of students, all materials they need, and the process of the game in playing game the teacher has to know the time. If there is no more time, we can not force to hold the game. Holding a game in a hurry will break the classroom condition.

From the statement above, the writer draws a conclusion that Flash game is an interactive game which used Macromedia Flash program as a media to create animation through vector and graphic, including audio visual.

## 2.1.1 The Advantage of using Flash

There are several advantages of using Flash, namely:

- Ease of finding artists. There is a huge talent pool to draw from for creating art or animations for Flash, either on staff or contract.
- 2) Embed your game in PowerPoint when giving a GDC presentation
- 3) Easy copy-paste to test things out.
- 4) Cost is essentially free.

(http://www.macromedia.com/software/flash/open/licensing/fileformat)

The main advantage of using Flash, though, is that it's simply wellsuited to the task of making games. An entire game play mechanic can be prototyped in a few hours, with decent art, in an easily packaged form that runs on a PC, Mac, or Linux, through a web browser.

Flash Games hopefully bring advantages both of teachers and students in conducted English teaching learning process and be able to improve students' vocabularies.

### 2.2 Teaching English to the Junior High School

English is one of the compulsory subjects, and it is very important to learn because it is one of the International languages that required as a bridge of communication between the various countries in the world.

In order to support the English teaching and learning, Indonesian government has constructed Kurikulum Tingkat Satuan Pendidikan (KTSP) for Elementary School, Junior High School, and Senior High School. This curriculum is used for guidance the teachers of SD, SMP, SMA to develop or create their own teaching.

The students are expected to be more active during teaching and learning activities. A teacher in teaching and learning language, especially English should determine what kinds of sub competency should be gained instead of what in the subject she should teach. Then the teacher should seek for different sources that support the competency achievement instead of sticking to one book text. However, English is taught for many years of school, students' achievement in English is still unsatisfactory. Some students have an additional lesson of English in many informal institutions. The unsatisfactory results might be caused by the different element between the two languages. These different elements have to do with the differences in sound system, grammatical pattern, vocabulary items, spelling, pronunciation, etc.

Many factors why the system of education in Indonesia cannot be done well such as; the limitation of teacher understands about the system of curriculum based competence, the limitation of medium and infrastructure which is had by schools in Indonesia.

# 2.3 Teaching vocabulary to the year seventh of Junior High School

English is taught as a compulsory subject at schools from elementary schools up to Universities. The goals of English teaching at Junior High School is to give language skills speaking, listening, writing, and reading. They also have to master the English components, which include grammar, vocabulary, and pronunciation (in speech) or spelling (in writing). Those who have mastered those four skills and the English component are regarded to be able to use this language at recognition level as well as at the production level. People cannot deny that vocabulary is a topic that should be given for students in learning and mastering foreign language. Furthermore, by referring to what vocabulary to teach, the teachers have to select the words that are presented in a given theme in such a way that they start from the easier to the more complex and difficult ones. In addition, the teacher should not discuss another topic until the topic being taught is completed. So as not to make the students confused.

In teaching vocabulary to the year seventh Junior High School, teacher has to select suitable words according to the curriculum to teach to the first stage. The choice of words should base on two considerations. They are commonest words and students' need as stated by Haycraft (1983: 18).

Because of the unlimited number of vocabulary, it is better for whoever teaches vocabulary to select suitable word to be taught. The words should be in line with the level of the students and the topics. Besides, he or she may also select media and methods to be applied in the class. Finnochiaro (1974: 73-74) give some comments related to the vocabulary teaching. They are:

- 1 Vocabulary should be taught in normal speech utterance
- 2 New vocabulary items should be introduced in known structures. Words about part of our body should be given in one lesson, while words about food in another.
- 3 If possible, the vocabulary items should be centered about one topic.
- 4 If familiar word is met in a new context, it should be taught again and practiced. A review or motion of the known meaning of the word

should be made so that the students will understand the contrast. Whenever possible, only one context should be taught at one time.

- 5 Vocabulary items should be taught in the same way that the teacher teaches everything else. She or he gives the students an understanding of the meaning in many ways. She or he dramatizes, illustrates using her or him and the students' shows pictures, and uses any appropriate media and methods.
- 6 Vocabulary items should be reintroduces many times with all the structures and in all in the situations in which they can logically be used.
- 7 The students should be encouraged to learn and use nouns, verbs, adjectives, and adverbs that contain the same root. In this phrase, the teacher may help them prepare four column word charts.

The writer thinks it is difficult for the year seventh students to remember the words that teacher taught without any techniques. In this study the writer assumes that flash game is one of interesting games for Junior High School students in learning English. So that the students are expected to have big interest to learn vocabulary much more.

In teaching and learning process, the government has arranged the English curriculum. According to the KTSP Curriculum of Junior High School, the vocabulary teaching in the first year period is the vocabulary related to the topic, namely; Personal life, School life, Family life, Profession, Hobbies, Things around us, and Shopping. Based on the topic above, I take Things around us, Profession and Shopping as the topic of my research. Besides learning vocabulary, the students hoped to use the word into simple form. Considering to the Kurikulum Tingkat Satuan Pendidikan (KTSP) curriculum for semester II in year seventh of Junior High School, the material that used in my research should be appropriate with the standard of competence.

### 2.4 General Knowledge of Vocabulary

In the general knowledge of vocabulary, I would give the definitions of vocabulary, types of vocabulary, and principles of vocabulary.

## 2.4.1 Definition of Vocabulary

Vocabulary is one of the important factors in learning English besides sound system, grammar, and culture. Students who want to learn English as their first foreign language have to learn those elements first.

To know what vocabulary is, These are several definitions suggested by several linguistics, they are as follows:

According to Manser (1995:641) vocabulary is total number of words or words known to a person, and list of words with their meaning.

Another definition is stated by Webster (2004:1400), He stated that vocabulary is list or collection of word, and phrases usually alphabetically arranged, and explained or defined. Webster also states that vocabulary is a sum or stock of words employed by language group, individual, or work or in a field of knowledge. Hornby (1995:1331) assert that vocabulary is a list of words with their meaning especially one that accompanies a text book in a foreign languages

Meanwhile, According to websites below, definitions of vocabulary can be presented as follows:

- Vocabulary of a language it's all the words or sounds in that language.
   (http:// www.antimoon.com/words/vocabulary-n.htm)
- 2 Vocabulary is a list or collection of the words or phrases of language, branch of science, occupation, or profession.

(http://www.olympus.net/personal/preview/definition.html)

3 Vocabulary is a collection of sign and symbols constituting a means of nonverbal communication, such as computer graphic icons.

(http:// www.olympus.net/personal/mortenson/preview/definition.html)

To complete the definition of vocabulary, the writer present Oxford English Dictionary which stated that vocabulary is all the words that a person known or uses or all the words in a particular languages, and the words that people use when they are talking about particular subject.

From the definition above, the writer concludes that vocabulary is a list or collections of words or phrases employed by language, people, class, or individual, or in a field of knowledge or study that have certain meanings.

## 2.4.2 Types of Vocabulary

Finocchiaro explains that students types of vocabulary can be divided into two kinds, they are " Active and Passive vocabulary " (1974: 73 ) Active Vocabulary consists of words which students understand, can pronounce correctly and use constructively speaking and writing. While Passive Vocabulary consists of words those students recognize and understand when they occur in a context and they never use them in communication. They understand them when they hear or read them, but they don't use them in speaking or writing

From the statement above we know that vocabularies are used actively by a particular person in speaking or writing and passively understood by a particular person in reading or listening to someone.

### 2.4.3 Principles of Teaching Vocabulary

In teaching Vocabulary, the teacher as the authority of the class has the job of managing the students' learning to gain the target of the vocabulary.

According to Wallace (1982: 27) there are six principles on which teaching vocabulary is to be based, they are:

#### 1 Aims

The aims have to be clear for the teacher. How many of the thing listed does the teacher expect the learner to be able to achieve the vocabulary. What are kind of words?

#### 2 Quantity

The teacher may have to decide on the number of vocabulary items to learn. How many new words in the lesson can the learner learn? If there are to many words, the students may become confused and discouraged.

#### 3 Need

In teaching vocabulary, the teacher has to choose the words really need by his students in communicator. The students should be put in a situation where they have to communicate and get the words they need.

#### 4 Frequent exposure and repetition

Frequent exposure and repetition mean that the teacher should give much practice on repetition so that his students master the target well. He should also give opportunity to the students to use the words in writing or speaking.

#### 5 Meaningful presentation

In teaching vocabulary, the teacher should present the target words in the way that their meanings are perfectly clear and unambiguous.

#### **6** Situation of presentation

The teacher should tell the students that they have to use the words appropriately. The use of words depends on the situation in which they are speaking and depends on the person to whom they are addressing.

Furthermore, in teaching vocabulary teacher first teach the words that express the most common experience of the students. The teachers must also teach the word that expresses the situation that the students know very well, and through experience without attending vocabulary clauses. Students will master a number of words when they become familiar with the situation where the words frequently occur.

# 2.5 Technique of Teaching Vocabulary to the Year Seventh Students of Junior High School

We have to learn vocabulary whenever we come to a contact with a new language and try to use it. However, studying language cause some problems because many students consider learning vocabulary is a boring activity, the teacher should keep finding out ways to make learning vocabulary easier and more pleasant. For that reason, the teacher should use appropriate techniques and media.

Concerning with the technique of teaching vocabulary, Gains and Redman as quoted by Uberman (1998), explain the following types of presentation techniques:

#### 1. Visual techniques

Visual techniques are very effective. Gerlach and Elly agree with the idea by saying, "when the facts and the concepts are concrete, specific, and structured, visual examples, and cues are more effective in eliciting verbal responses than a word and other symbols" (1980:2667)

#### 2. Verbal explanation

To know the meaning of new vocabulary in a context, students can use verbal explanation such as context clues. Ying (2001) in his article acquiring vocabulary through a Context Based Approach Conclude the type of context that can help the reader infer the meaning of new word, are: morphology, reference words, cohesion, synonym, antonym, definition, etc.

## 3. Use of dictionary

Students can use dictionary to find out meanings of unfamiliar words. There are some kinds of dictionaries, monolingual dictionaries, thesauri and the like.

Another techniques also define by Ngaraj, stated that the techniques the teacher can use for classroom are:

#### 1. Object

Object in the classroom or those brought from outside can be used to teach vocabulary.

#### 2. Pictures

In the initial stages, pictures can be used to teach vocabulary orally. Later, the learner can asked to fill the correct word with the picture.

## 3. Text

Texts are often used for the teacher in teaching vocabulary.

#### 4. Context

Vocabulary teaching becomes meaningful which it is done in context. A word gets its meaning from the context.

### 5. Vocabulary game

There was useful for vocabulary expansion.

## 2.6 Teaching vocabulary using media

We have to learn vocabulary whenever we come into contact with a new language and try to use it. However, studying language causes some problems. Because many students consider learning vocabulary is a boring activity, teacher should keep looking for way to make learning vocabulary easier and more pleasant. For that reason, the teacher should use appropriate technique and media.

Teaching English as the foreign languages for Indonesian students is not easy. The teacher is asked to use suitable technique or media to teach effectively because an effective teaching is the basic factor for the success learning process including in learning vocabulary.

Gerlach and Elly (1980:260) assert that, the effectiveness of any media depends on the creativity of the teacher using it. So, the teachers should be creative and always search for a new method that can help teaching and learning process.

The term "media" is defined by Brown (1977:2-3). He stated that media are the tools or physical things used by a teacher to facilitate the

instruction. The teachers' creativity in using the teaching media will increase the probability that the students will learn more and the knowledge will retain better in their mind.

According to Gerlach and Ely (1950:254), to select the appropriate media, the teacher must consider the characteristics of the students which directly related to the learning process such as verbal abilities, visual and video perception skills, experience, intelligent, motivation, and personality asocial skill. Other factors which are also ought to be considered in media selection come from the instructional system model, that is, the organization of groups, the time available and the space in which the media will be used. In other words any special factors that help the teacher to select appropriate media should be used. Many kinds of media, such as pictures, tape recorder, overhead projector, radio, television, computer, etc are very useful for the teacher to achieve instructional goals of the teaching learning process and they can also be easily formed in our daily lives.

Media can be interpreted as any substances which play an important role in teaching and learning process. They helped the students or learners master the material more increasingly, through media students can see people, places, and things that are far from their own experience or places.

Here, the writer use computer to create flash game with all animation, colors, and other graphics that can make students interest to learn vocabulary. By using computer, students will play a game while he or she learns English in fun ways (Dwi Heriyanto, 2005:39)

There are a lot of Media in teaching and learning processes. (Gerlach and Ely 1980: 247) classify media into the following types:

#### 1. Still Pictures

They forms as photographs of any objects or events which can be projected in textbook illustration, bulletin board materials, sliders, filmstrip, frames, or overhead transparencies.

### 2. Audio Recording

It is maid on magnetic tape, on disc, or on motion picture sound tracts. These are the actual events or sound effect reproductions.

#### 3. Motion Picture or Video Tape Recording

It is a moving image produced in color or black and white from live action or graphic representation. Objects or events can be in normal, slow and time-lapse on top motion. All types of audio – video electronic distribution system eventually appear on a cathode ray tube (Television Monitor) included on Television.

#### 4. Real Things, Simulations, and Models

They include people, events, objects, and demonstration. Real things are the actual objects or events. Simulation is a copy of real situation designed to be as similar as possible to the actual events.

## 5. Programmed and Computer - Assisted instruction.

They are sequences of information (Verbal, Visual or Audio) designed to elicit predetermined responses. The most common

examples are programmed textbooks or instructional programs prepared computer.

From the explanation above, it is known that media is the material, tools or events that establish condition used by a teacher to facilitate the instruction to acquire knowledge, skills, and attitudes and engage the learners in a topic or as the basis of the whole activity. So, teaching vocabulary through media can encourage and motivate the students to understand and memorize the material well.

The writer thinks that it is difficult for the year VII students of Junior High School to remember the words that the teacher taught without any media. With Flash Game as a media hopefully can help the students to understand the meaning of words faster than to understand the meaning of words without any media. The students will feel enjoy when they play Flash Game and it will motivated them to learn English more often.

#### 2.7 Flash game as a Media in Teaching Vocabulary

The success or failure of the English teaching is very much affected by the factors involved such as the teachers, methodology, teaching materials, and other facilities. It is clear that English teachers are demanded to improve the method of teaching when they wants to help the students to get satisfactory result. In language teaching, it is no doubt that media hold certain role. The role of media can enhance language teaching. The nature meaning of media is deliver or mediator.

Flash game is one kind of media that can help the teacher draw the students' interest and arouse their motivation to learn. If the students are motivated, they will participate actively and will learn hard during the teaching learning process. Thus, a teacher utilizes flash game to help her get the students' interest and motivation.

## 2.8 Steps of Playing Flash Game

- Open the flash game on its program. You will see some options of vocabulary quiz, such as;
  - a. Level

Click level to choose which level do you want to play.

b. Timer

Click timer to select duration of your game.

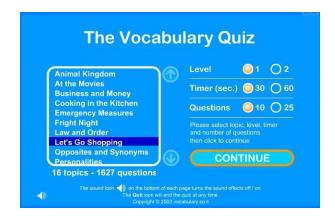
c. Question

Click question to choose how many question you will answered.

d. Topic

Click topic to select topic of the game (let's go shopping)

After finish with the options, click continue.



It will show you the main screen of the game. It will show you 10/25 questions based on your selection before.

I need to go to a store to buy a tenni	1 game
racket and some ba	
	3 sports
	4 hobby

3. Give the correct answer of the question. If your answer is correct, you can go on with the next questions.

I need to go to a store to buy a tennis	1 game
racket and some balls.	2 <sup>play</sup>
	3 sports
	4 hobby

4. if your answer is wrong, it will show you a red bullet on your number and it will directly corrected.



5. If you have finished with all of your questions, it will show your scores.



# CHAPTER III METHOD OF INVESTIGATION

This chapter is divided into eight sub sections. They are; Main source of data, Subject of the study, the Experimental design, Procedure of experiment, Variables, Instrument, Construction of the test, Try out, Condition of the test, Item Analysis, Method of collecting data, Pre test, and post test, and grade of achievement.

#### 3.1 Main Source of Data

In my effort to find out the solution of problem, I needed some data. The required data and information were obtained from experiment or field research. This study is an experiment research. It refers to the activity of collecting data from experiment group students and control group students.

This research was conducted at SMP N I Kaliwungu, in the academic year 2008 - 2009. The writer developed the instrument of research and administrated it to the students to collect the data.

In the experiment, the writer taught the two groups. They are the experiment group and control group. The experiment group was taught by using Flash game while the control group using conventional method. At the beginning of the experiment, the two groups were give pre test. At the end of the experiment, both of groups were given post test.

#### **3.2** Subject of the Study

In this subject of the study, I presents population and sample also sampling technique.

#### 3.2.1 Population and Sample

Before the sample was chosen, the writer had to determine the population first.

Population refers to the object of investigation. Arikunto (1996:115) says that "Population is a set or correlation of all elements possessing one or more attributes of interest."

Sutrisno Hadi (1980:220) states that population is a group of people or items about which information is being collected.

Best (1981:8) argues that a population is any group of individuals that have one or more characteristics in common that are interesting to the researcher. The population of this research was the year seventh students of SMP N I Kaliwungu in the academic year 2008 – 2009. The total population was 40 Students. The writer took the year seventh students based on consideration that English has been taught to them before. In addition, they were chosen as the population of the research based on some reasons, those were; the students were all in the same grade, the students relatively have the same marks in the vocabulary mastery, and the students had been studying English for the same period of time.

To studying population more effectively, the writer selected sample. Kerlinger (1965:118) states that a sample is a part of a population that is supposed to represent the characteristic of the population. Therefore, sample is taken from part of population, but not the whole.

Experimental group as a sample can already represent for the whole population of the study. Therefore, the writer selected 20 Students as the experiment group and 20 students as the control group.

#### 3.2.2 Sampling Technique

A sample is selected randomly when every number of the population has equal, no zero chance being included in the sample. Due to the fact there is limitation in this research, that's why random sampling was chosen here in taking and collecting data.

The writer selected one classes of the students as sample in her study. They were experiment group taught using Flash game and control group using conventional method. In one class, the average students' qualities are different. They are low, medium, and high intelligence. However, they have equal background. They are in the same level, medium to low background.

#### **3.3 The Experimental Design**

This study used "pre test – post test". The design of the experiment can be described as follows;

E	01	Х	02	
С	03	Y	04	

(Arikunto, 2002:79)

Where:

E : Experimental group

- C : Control group
- 01 : Pre- test for the experimental group
- 02 : Post- test for the experimental group
- 03 : Pre- test for the control group
- 04 : Post- test for the control group
- X : Treatment using Flash game
- Y : Treatment using conventional method

In the design above, subject were assigned to the experiment group (top line) and the control group (bottom line). The quality of the subjects was first checked by pre testing them. Then, the experimental treatment was given to the experimental group. The two groups were taught the same topic, but with different techniques of teaching. The experimental group was taught by using Flash game to improve vocabulary. The control groups were taught with conventional method. Both groups had the same material. Pretest and post- test were given to them. The time given was 45 minutes. The results were computed statistically.

Table 3.3.1

		Date					
NO	Activities	02 Feb 2009	05 Feb 2009	06 Feb 2009	23 Feb 2009	26 Feb 2009	
1	Try out						
2	Pre test						
3	Treatment 1						
4	Treatment 2						
5	Post-test						

#### **3.4 Procedure of the Experiment**

Conducting Experiment always requires some steps which have to be done in chronological. The following steps are taken by the writer as she worked on her experiment;

- 1 The writer chosen the year seventh of SMP N I Kaliwungu as the population
- 2 The writer took two groups of students as the subject randomly, one as the experimental group and the other as the control group.
- 3 The writer conducted the real experiment. It concluded pre- test, giving treatments, and post- test.

#### 3.4.1 The Activities of the Experimental Groups

In this experiment, the writer will conduct several activities. They are;

#### 1 Pre- test

Pre test was given before doing the experiment. First, the writer came to the chosen class and conditioned herself and explains to the students what they were going to do. It was begun with distributing the instruments and asking them to do the pre- test.

#### 2 Activities in conducting the experiment

In conducting the experiment, the students were given Flash games. Then they were given explanation about Flash game and the rule of playing Flash game. After that, they can practice Flash game on each computer.

#### **3** Post- test

Post test was given after conducting all the activities above. The test given to the students was the same as the pre- test.

#### 3.4.2 The Activities of the Control Group

#### 1 Pre- test

Pre- test was given before doing the lecturer study. First, the writer came to the chosen class and conditioned herself and explains to the students what they were going to do. It was begun with distributing the instruments and asking them to do the pre- test.

#### 2 Activities in conducting the experiment

In the experiment, the students were given a number of words to be learned and memorized.

#### 3 Post-test

Post test was given after conducting all the activities above. The test given to the students was the same as the pre- test.

#### **3.5 Variables**

A variable can be defined as an attribute of a person or from an object. From the design of the experiment, two variables can be involved in this thesis, they are;

#### 1. Dependent Variable

Dependent variable is the presumed effect of the dependent variable. The dependent variable in the experiment is the students' achievement manifested in the test score.

#### 2. Independent Variable

Independent variable is referred to characteristic that is believed as able to make a difference. It is the variable that was selected, manipulated and measured by the researcher. Independent variable is the presumed cause of the dependent variable. In this experiment, the independent variable is method of teaching vocabulary mastery for both groups.

#### **3.6 Instrument**

As instrument is very useful to collect data required in an experiment, the writer used a test as the instrument in this study. Kerlinger (1965: 481) says that the most part of the instrument is used to measure the achievement in education is test.

In this thesis, I was concerned with the vocabulary of the year seventh of SMP N I Kaliwungu. A test in the vocabulary mastery will be very important instrument for the research.

#### 3.6.1 Constructional of the Instrument

According to Harris (1969:71) there are two basic kinds of the test instrument used to measure four language skills of the students i.e. the objective test and the essay test. I used the objective test (multiple choice tests). The vocabulary multiple choice questions type was used here in her investigation. The choice of this type was based on the following considerations; 1 Multiple choice test is economical in term of the number of items that can be answered in a short period of testing time.

Following are alternate ways to prepare vocabulary multiplechoice completion items (Madsen, 1983: 22):

- a. Definition.
- b. Phrase completion. They are idioms and appropriateness to context. The students' test papers can be easily and quickly scored.
- c. Phrasal context (not sentence completion)
- *d. Multiple-choice cloze*
- 2 The students' test papers can be easily and quickly scored.
- 3 Since the correct answers are limited in number, the objective test type will not make different interpretation of the students' test papers.

According to Gronlund (1981:65) "test of achievement might be used for selection, placement, diagnosis or certification of mastery."

Harris (1969:2) says that "achievement test scores are used in evaluating the influences of courses of study, teachers, teaching methods, and factors considered to be significant in educational practice."

Based on the above statements, I assume that in this study she would like to conduct the achievement test. It is based on the vocabulary mastery of the students after conducting the teaching learning process by using flash game as a teaching aid of teaching vocabulary.

#### **3.7 Construction of the Test**

To reach the goal of the study, the writer has to construct the test as good as possible. She has to choose the type of test and arrangement of the test.

"A test of vocabulary measures the students' knowledge of the meaning of certain words and words group. Such a test may examine the students' active vocabulary (The words he should be able to recognize and understand when he is listening to someone or when he is reading)." (Heaton, 1975:5)

As an example, the writer conducted the test consisting of 30 items and she gave 40 minutes to do the test. The test was in the form of multiple choices, matching, and fill in that covered three topics; Things around us, Profession, and Shopping.

#### 3.8 Try Out

According to Mouly (1967:371), trying out the test is necessary since the result will be used to make sure that the measuring instrument has such characteristics as validity and reliability.

Based on the statements above, I conducted the try out using 50 systems of multiple choice tests with four options. Each test item has one score. The highest score for those is 10 that is got from 50 divided by 5. They had to answer the test consisting of 50 items in 40 minute.

#### **3.9 Condition of the Test**

Harris (1969:13) states that all good tests possessed three qualities, i.e. Validity, reliability, and practicality. That was to say, any test that we use has to be appropriate in terms of four objectives, dependable in the evidence it provides, and applicable to our particular situation. Those characteristics of a good test would be explained further below.

#### 3.9.1 Validity of the Test

Validity refers to the precise measurements of the test. There are three kinds of validity, i.e. content validity, empirical validity, and face validity (Harris, 1969:18). Harris (1969:18-2) explained that content validity meant the test reflected an analysis according to the views of recognized authorities in the skill area. Empirical validity depended in large part on the reliability of the test and criterion measure. Face validity was the way the test look whether it was irrelevant, silly, inappropriate, etc.

Besides, the writer also used empirical validity. To measure the empirical validity, the writer used Pearson's Product Moment Correlation by using formula below:

$$r_{xy} = \frac{N\Sigma XY - (\Sigma X) (\Sigma Y)}{\left\{N \Sigma X^2 - (\Sigma X)^2\right\} \left\{N \Sigma Y^2 - (\Sigma Y)^2\right\}}$$

**f**xy : Coefficient between X and Y

X : Mark of the test

- Y : Standard mark
- N : Number of students

The result is consulted with r product moment, rxy > r, is valid (Arikunto, 2002:157).

### 3.9.2 Reliability of the Test

According to Madsen (1983: 179), a reliable test is one that produces essentially when the consistently on different occasions when the conditions of the test remain the same.

The correlation of the variables, which might show the reliability of test, used K-R.20 formula as follows:

$$r = \frac{N\Sigma XY - (\Sigma X) (\Sigma Y)}{\left\{N \Sigma X^{2} - (\Sigma X)^{2}\right\} \left\{N \Sigma Y^{2} - (\Sigma Y)^{2}\right\}}$$

In which:

r	: Reliability of the test
$\Gamma^{1/2}_{2/2}$	: The coefficient of the correlation
Ν	: The total subject of experiment
Σx	: The total of x item
Σу	: The total of y item
$\Sigma x^2$	: The total of score
$\Sigma y^2$	: The sum of square of the score item
Σxy	: The sum of total square score

(Arikunto, 2002: 146)

#### 3.10 Item Analysis

After determining and scoring the try out test, an item analysis was made to evaluate the effectiveness of the items. It was meant to check whether each item met the requirement of a good test item. This item analysis concentrated on two vital features, level of difficulty and discriminating power.

Heaton (1975:172) said that all item should be examined from the point of view of their difficulty level of examination.

#### 3.10.1 The difficulty Level of the Test

According to Heaton (1975:172), the index of difficulty or the facility value of an item simply shows how easy or difficult the particular item proved in the test.

An item is considered to have a good difficulty level if it is not too easy or too difficult for the students, so they can answer the items. If a test contains many items, which are too difficult or too easy, it cannot function as a good means of evaluation. Therefore, every item should be analyzed first before it is used in a test. The formula of item difficulty is as follows:

$$P = \frac{B}{JS}$$

Where:

P : Item difficulty

B : Number of students who answered the item correctly

JS : Number of Students

(Arikunto, 1995: 212)

#### 3.10.2 Discriminating Power

It was also essential to determine the discriminating power of the test items because it could discriminate between the more and the less able students. Heaton (1975:173) states

"The discrimination index of an item indicated the extent to which the item discriminated between the testers, separating the more able testers from the less able. The index of discriminating told us whether those students who performed well on the whole test tended to do well or badly on each item in the test."

There were various methods of obtaining the index of discrimination; here the writer applied the procedure favored by Heaton (1975:175) as follows:

The first, the writer counted the number of the students on the upper and lower groups who an item correctly. Then, she subtracted the number of students giving correct answers in the upper group found the difference in the proportion passing in the lower group. Then, she divided the difference by the total number of candidates in one group. The procedure of calculating the discriminating power explained above could be expressed by the following formula:

$$D = \frac{BA}{JA} - \frac{BB}{JB}$$

Where:

BA : Number of students in the upper group who answered the item correctly

- BB : Number of students in the lower group who answered the item correctly
- JA : Number of all students in the upper group
- JB : Number of students in the lower group.

(Arikunto, 1995: 218)

The classification of the discrimination index was presented below:

D	: 0,00 - 0,20	= Poor
D	: 0,21 - 0,40	= Satisfactory
D	: 0,41 - 0,71	= Good
D	: 0,71 - 1,00	= Excellent

#### **3.11 Method of Collecting Data**

A researcher can use many kinds of data collection like questionnaire, interview, or test. It should be noted, however that all methods of data collection should be objective.

In this study, the writer used the objective test in the form of multiple choice items since it is easy to scores and administer. It is similar to Heaton's opinion (1975:14) that:

"The multiple choices item is now widely regarded as being one of the most useful of all objective item types. Although it is among the most difficult of all objective item types to construct, it is simple to score and administer."

In scoring the objective test, each correct answer is counted one point

using the formula below:

$$S = \frac{R}{--} X 100$$

Where

S : Score

R : Total number of correct answer

n : Total number of items

(Heaton, 1975: 14)

A vocabulary test is administered for collection. The test-retest method is used in this investigation. Firstly, a pre-test was given to the students. Pre-test is used as a diagnostic test. This was given for both groups after being treated.

#### 3.12 The Analysis of Pre-test and Post-test

Before the experiment was conducted, the writer gave the students pre-test consisting of 20 multiple choice items, 5 matching, and 5 fill in. At the end of experiment, post-test was given.

#### 3.12.1 Pre test

The students were given a pre-test in starting the data collection to identify the vocabulary achievements. The pre test was conducted to 40 students at SMP N I Kaliwungu. The test was monitored to get the students do seriously. Here, they were not allowed either to open dictionaries or to ask other students' answers.

#### 3.12.2 Post-test

A treatment was given to the students before the post-test was conducted. Here, for the experimental group, Flash game was used for teaching vocabulary to the students. For the control group, conventional method was used for teaching vocabulary. By doing this, the students were expected to have better vocabulary. It is hoped, the experimental group would be better than the control group in achieving the vocabulary post-test.

The post-test was conducted to measure the students' abilities after the treatment. The test contained the same items as in the pre-test. Besides, it was given to the same experimental and control group. Then the results were analyzed.

#### 3.12.3 Analyzing

The obtained data were analyzed to get the final result. T-test formula was used in this research to analyze the data. It showed the final result from both experimental and control group given different treatments. The following is:

t = 
$$\frac{Mx - My}{\sqrt{\left[\frac{\sum X^2 + \sum Y^2}{Nx + Ny - 2}\right]\left[\frac{1}{Nx} + \frac{1}{Ny}\right]}}$$

Where:

Mx : The mean scores of the experimental class

My : The mean scores of the control class

- $X^2$  : The total of the square deviation of the experimental class
- Y<sup>2</sup> : The total deviation of the control class
- Nx : The number of sample of the experimental class
- Ny : The number of sample of the control class

(Arikunto, 2002:280)

Therefore, the application and the result of the investigation will be discussed in chapter IV.

## 3.13 Grade of Achievement

Below is the list of the level of mastery that shows the percentage of the correct answers and grade for the subject sample.

Percentage	Grade	Level of Achievement	
90 - 100	А	Excellent	
80 - 89	В	Very good	
70 – 79	С	Good	
60 - 69	D	Sufficient	
59	Е	Insufficient	

(Bloom, 1981: 105-106)

# CHAPTER IV RESULT OF THE INVESTIGATION

This chapter shows the result of the study, which presents Try out findings, Significance difference between Two Means, Test of Significance, Difference of Average Scores (Mean) between the Experimental and Control Class, Discussion of Research Findings, and the Advantages and Weaknesses of Using Flash Game.

#### **4.1 Try-Out Findings**

#### 4.1.1 Validity

As mentioned in chapter III, validity refers to the precise measurement of the test. In this study, item validity was used to know the index validity of the test. After I calculated using Pearson Product Moment, the index validity of the number 4 was 0.33. Then I consulted the table of r product moment with n = 20 and significance level 5% in which r = 0.320. Since the result of the computation was higher than r in the table, the index of the items number 4 was considered to be valid.

#### 4.1.2 Reliability

A good test must be valid and reliable. Besides of index validity, I has also calculated the reliability of the test using Kuder-Richardson formula 21 (KR 21). The result of computation was r = 0.84. It was considered to be reliable since the result was higher than r in the table.

#### 4.1.3 Item Analysis

#### 4.1.3.1 The Level Difficulty

As mentioned in chapter III, there are three categories of level of difficulties: they are difficult, medium, and easy. After computing 50 items of try-out test, there was 1 items considered to be difficult, 13 items were medium, and 36 items were easy.

The next step, I calculated the discriminating power in order to determine how well each item discriminated between high-level and low-level examines.

#### 4.1.3.2 The Discriminating Power

The discriminating index of an item indicated the extent to which the item discriminated between the testers, separating the more able testers from the less able. The index of discriminating told us whether those students who performed well on the whole test tended to do well or badly on each item in the test. There were five categories of the discrimination index; i.e. excellent, good, satisfactory, and poor. After computing 50 items of try-out, there were no items considered to be excellent, 3 items were good, 29 items were medium, and 18 items were poor.

Based on the analysis of validity, difficult level, and discriminating power, finally 34 were accepted. From 34 items, only 30 items were used as instrument to make the scoring easy. There are number 4, 8, 9, 11, 12, 13, 15, 16, 20.21,22, 24, 25, 26, 27, 28, 29, 32, 33, 35, 36, 38, 39, 42, 43, 44, 46, 47, 48, 50.

#### **4.2 Significance Different between two Means**

In this chapter, I would like to determine the different effectiveness of treatment given to both groups, which was reflected on the means gathered. I would apply the t-test formula to count the difference.

The t-test formula is:

$$t = \frac{M_{x} - M_{Y}}{\left[\begin{array}{c} \underline{\sum_{X^{2} + \sum_{y^{2}}}}\\ Nx + Ny - 2 \end{array}\right] \left[\begin{array}{c} \underline{1} & + & \underline{1}\\ Nx & & Ny \end{array}\right]}$$

- t : t- Test
- Mx : mean of the control group
- My : mean of the experimental group
- $\Sigma x^2$  : sum of the square of deviation of the control group
- $\Sigma y^2$  : sum of the square of deviation of the experimental group
- Nx : number of sample of the control group
- Ny : Number of sample of the experimental group

There are three steps in computing the statistical analysis. First is calculating the means scores of the experimental group and the control group. Second is calculating the deviation of each group and finally applying the t-test formula.

For the first step, I tried to find the increase of the score in control group between pre-test and post-test.

NO	Code Tester	Pre Test (X1)	Post Test (X2)	Differences (X)	X²
1	C-01	67	67	0	0
2	C-02	30	58	28	784
3	C-03	37	50	13	169
4	C-04	77	73	-4	16
5	C-05	53	73	20	400
6	C-06	80	83	3	9
7	C-07	67	70	3	9
8	C-08	83	83	0	0
9	C-09	33	47	14	196
10	C-10	63	73	10	100
11	C-11	80	90	10	100
12	C-12	70	73	3	9
13	C-13	57	50	-7	49
14	C-14	67	73	6	36
15	C-15	63	70	7	49
16	C-16	77	73	-4	16
17	C-17	80	67	-13	169
18	C-18	67	67	0	0
19	C-19	77	70	-7	49
20	C-20	80	87	7	49
	Σ	1308	1397	89	2209

## THE TABLE OF THE CONTROL GROUP

The Mean of the control group is:

$$Mx = \frac{\sum x}{N x}$$
$$Mx = \frac{89}{20}$$

Mx = 4.45

Next, the increase of scores of the experimental group is calculated.

NO	Code Tester	Pre Test (Y1)	Post Test (Y2)	Differences (Y)	Y²
1	E-01	73	93	20	400
2	E-02	70	87	17	289
3	E-03	67	80	13	169
4	E-04	83	83	0	0
5	E-05	67	83	16	256
6	E-06	80	80	0	0
7	E-07	53	70	17	289
8	E-08	73	67	-6	36
9	E-09	77	87	10	100
10	E-10	70	77	7	49
11	E-11	67	80	13	169
12	E-12	73	97	24	576
13	E-13	67	73	6	36
14	E-14	73	93	20	400
15	E-15	70	90	20	400
16	E-16	63	53	-10	100
17	E-17	73	73	0	0
18	E-18	67	80	13	169
19	E-19	57	87	30	900
20	E-20	53	77	24	576
	Σ	1376	1610	234	4914

THE TABLE OF THE EXPERIMENTAL GROUP

The Mean of the experimental group is:

$$My = \frac{\sum y}{N y}$$

$$My = \frac{234}{20}$$

= 11.7

My

After calculating the mean of the control group and experimental

group, I calculated the deviation of the each group.

The computation of the deviation of the control group:

$$\Sigma x^{2} = \Sigma X^{2} - (\Sigma X)^{2} / N x$$

$$\Sigma x^{2} = 2209 - (7921)^{2} / 20$$

$$\Sigma x^{2} = 1812.95$$

The deviation value of the control group is 1812.95

The computation of the deviation of the experimental group:

$$\Sigma y = \Sigma Y^{2} - \frac{(\Sigma Y)^{2}}{N y}$$

$$\Sigma y^{2} = 4914 - \frac{(5756)^{2}}{40}$$

$$\Sigma y^{2} = 2176.2$$
The basis of the second seco

The deviation of the experimental group is 2176.2

Finally, the t-test formula is applied

$$t = \underbrace{\left( \begin{array}{c} \underbrace{\sum_{X^2} + \sum_{Y^2}}_{Nx} + Ny - 2 \end{array} \right) \left( \begin{array}{c} \underbrace{1}_{Nx} + \underbrace{1}_{Ny} \\ \\ \\ \end{array} \right)}_{Nx}$$

$$t = \sqrt{\frac{2209 + 4914}{20 + 20 - 2}} \left[ \frac{1}{20} + \frac{1}{20} \right]$$

$$t = +7.25$$

$$\boxed{\left[\frac{2173}{38}\right] \quad \frac{2}{20}}$$

$$t = \underbrace{+7.25}_{1.87631578947368}$$

 $t = \frac{+7.25}{1.369786768}$ 

t = 5.293

#### 4.3 Test of Significance

To examine whether the difference between the means of the control and experimental group id statistically significant, the t-value obtained should be consulted with the critical value in the t-table. I used the 5%(0.05) level of significance.

The number of subjects from both groups was 40, so the degree of freedom was 38, which was obtained from the formula:  $\Sigma Nx + \Sigma Ny - 2$ . For five percent alpha level and 38 Degree freedom.

The t-table was 2.42 The obtained t-value was 5.293 so the t-value was higher than the critical value. Since the obtained t-value was higher

than the critical value on table (5.293 > 2.42) the difference was statistically significant. Therefore, based on the computation there was significant difference between teaching vocabulary after and before adding a game. It could be seen by the result of the test where the students' score was higher after the treatment.

# 4.4 Difference of Average Scores (Mean) between the Experimental and the Control Class

The experimental class and the control one were used to play a flash game in computer laboratory as media to teach vocabulary was more effective than expository one.

Considering the result of the test gained by two classes, we can see which class got better achievement.

The average of the control group on Pre-Test

$$Mc = \frac{\sum Xc}{Nc}$$

$$Mc = \underline{1308} \\ \underline{20}$$

Mc = 
$$65.4$$

The average of the control group on Post-test

Mc 
$$= \frac{\sum Xc}{Nc}$$
  
Mc 
$$= \frac{1397}{20}$$
  
Mc 
$$= 69.85$$

The rise of the average scores:

69.85 - 65.4 = 4.45

For the control group, the average after the treatment increased only 4.45 point.

The average of the experimental group on Pre-Test

$$M_{E} = \frac{\sum X_{E}}{N_{E}}$$
$$M_{E} = \frac{1376}{20}$$
$$M_{E} = 68.8$$

The average of the experimental group on Post-Test

$$M_{E} = \frac{\sum X_{E}}{N_{E}}$$
$$M_{E} = \frac{1610}{20}$$

$$M_{\rm E} = 80.5$$

The rise of the average score:

$$80.5 - 68.8 = 11.7$$

For the experimental group, the average after the treatment increased 11.7 point.

After looking at the different development on the average between the two classes, there was different achievement. The experimental class got better development, the average increased 11.7 point (from 68.8 to 80.5 ), whereas the control class only increased 4.45 (from 65.4 to 69.85).

#### 4.5 Discussion of Research Findings

The objective of this study was to know if there was an effect of using Flash Game in teaching vocabulary to the vocabulary mastery achieved by the year seventh of SMP N 1 Kaliwungu in academic year 2008/ 2009.

In the pre-test, the average score was 65.4, while in the post test the average score was 80.5 Although it shows a slight difference between two means, the result shows that the post-test as better than pre-test.

According to the convention of level achievement, the result of teaching vocabulary by using Flash Game was excellent – the average score was 80.5

To check the significant effect of the treatment, I analyzed by using ttest formula. The result of the t-test is 5.293. I consulted the critical value on the t-table using the 5% (0.05) alpha level of significance and the 38 degree of freedom which was 2.42. Since the obtained t-value was higher than the critical value on the table (5.293 > 2.42), the difference was statistically significant. It means that, there was a significance difference between teaching vocabulary after and before using it.

#### 4.6 The Advantages and Weaknesses of using Flash Game

Here I show some factors that are influenced by the result of the experiment. The explanation below shows the advantages of using flash game as an aid.

#### 4.6.1 Students' interest

I usually give explanation by using a Flash Game, especially by giving the rule in playing the game on computer. Based on my observation during the experiment, the use of flash game as an alternative teaching technique can motivate the students in learning. The students might have a high interest in following the teaching learning process. Most students in the Junior High School are more interested in audio visual aid, such as it, rather than an expository aid. They feel exciting to learn English vocabulary by using a new technique that is rarely used by their teacher. Most students like to play a game what kinds of games are. The game itself will create the learning atmosphere funnier and more interesting. The experiment itself usually using in language room or multimedia room. So the students are easier to receive the lesson (the material of the study) by using this game in teaching-learning process. Absolutely, the lesson presented in funnier ways and more creative.

#### 4.6.2 Automatically

In playing Flash Game, the students have to concentrate and think fast because this game needs a spontaneous think to remember what the answer is.

#### 4.6.3 Visualization

Students think that learning with colorful media and using computer technology is more interesting and useful to follow kinds of teaching learning process. So the lesson is easier to understand, memorize, and remember for the students. Not only that, the students can play it at school and at home too.

We all know that every method has its advantages and weaknesses. The use of Flash Game also has its weaknesses as described below.

- 1. It spends money to prepare the materials. It could be found the words and pictures in suitable book like *Pemkot* book or other relevant books that gives the suitable information. After getting the materials, I have to enter the materials on computer to create a game as a media in this research.
- 2. I must have a will to spend own spare time at home for searching the suitable material.

# CHAPTER V CONCLUSION AND SUGESSTION

In chapter V, the writer explains the conclusion and suggestion, which elaborates the result of the research and data analysis. Here the writer gives the conclusion and the suggestion.

#### 5.1 Conclusion

The objective of the studies is to explain and to investigate if there is a significant difference of vocabulary mastery achieved by the year seventh students of Junior High School who are taught by using conventional method and by using Flash game.

1. In order to gain the objective of the study, I conducted an experiment. After conducting the experiment, I found out the difference between the mean scores of the experimental group and the control group. The experimental group was taught through flash game and the control group was taught using conventional method. Before the experiment was conducted, a pre-test was given to both of groups at the same time. A post-test was given after the experiment was done. The test was about vocabulary absolutely. The students were asked to do the best by choosing the right answer A, B, C, or D and wrote in the answer sheet. To make sure that the test was reliable and valid, the test was tried out first. The result of the try out was

53% ( $\Gamma_{1/2} \frac{1}{2} = 0.72$  And r 11 = 0.84). It was greater than the critical value of 95% confidence level 0.32 . it means that the test was reliable and valid.

2. In chapter IV, I have analyzed the data statistically. Based on the statistical analysis, it can be seen that the mean scores of the experimental group is higher than the mean scores of the control group. In order to know whether the difference between the two mean is significant or not t-test is applied. The result of the computation is 5.293. The critical value for the two tests for 38 degree of freedom at 5 % alpha level of significant is 2.42.

Since the obtained t-value (5.293) is higher than the critical value at 5 percent alpha level of significance is 2.42, I concluded that the difference between the means of both groups was statistically significant. As the mean of the post-test was statistically higher than that of the pre-test, the writer concluded that the vocabulary mastery achieved by the year seventh students at SMP N I Kaliwungu is improved after they were taught using Flash game as teaching aid.

#### 5.2 Suggestion

One of the constraints that the teacher may face in her duty was how to make her students interested in her teaching or how to promote her student's interest to follow class activity well. If students' have high interest in following the teacher, it would not so be difficult for the teacher to transfer the lesson.

As mentioned in the previous chapter, learning vocabulary is difficult for most Indonesian learners. In order to make vocabulary lesson effective, beneficial and interesting, a teacher should use some well-developed and fascinating techniques in the classroom. The one way of these is teaching vocabulary by using Flash Game. The use of Flash Game as an aid is one way to achieve this goal. However, the teacher must select the suitable materials for the topic she was going to teach.

Using Flash game is a welcome break from the usual routine of the language class, is motivating and challenging, helps students to make a sustain the effort of learning vocabulary. For the next researcher, I suggest the next researcher could use other game to increase students' vocabulary mastery to make a fun way in teaching and learning process.

#### BIBLIOGRAPHY

- Arikunto, Suharsimi. Prof. Dr. 1995. Prosedur Penelitian Suatu Pendekatan Praktek. Jakarta: PT. Rineka Cipta
- Arikunto, Suharsimi. Prof. Dr. 1996. Prosedur Penelitian Suatu Pendekatan Praktek. Jakarta: PT. Rineka Cipta
- Arikunto, Suharsimi. Prof. Dr. 2002. Prosedur Penelitian Suatu Pendekatan Praktek (Edisi Revisi V). Jakarta: PT. Rineka Cipta
- Badan Standar Nasional Pendidikan. 2006. Panduan Penyusunan Kurikulum Tingkat Satuan Pendidikan Jenjang Pendidikan Dasar dan Menengah, Jakarta: BPNSP.
- Bagus, S.D. 2005. The Application of the Five-Minute Activities to Teach English Vocabulary at Junior High School (The Case of Seventh Grade Students of SMP N 2 Jepara in the Academic Year of 2004/2005). Semarang: Semarang State University. Unpublished Final Project.
- Brown, douglas. H. 1977. *Principle of Language Learning and Teaching*. Regenes Englewood Cliffs: Prentice Hall.
- Best, John W. 1981. *Research in Education* (4<sup>th</sup> ed). New Jersey: Prentice-Hall, Inc.
- Bloom, Benjamin. S. 1981. *Evaluation to Improve Learning*. New York: Mc. Graw-Hill Book Company.
- Finocchiaro, Mary. 1974. English as Second Language from Theory to Practice. London: Regent Publishing Company, Inc.
- Gerlac&Ely. 1980. Teaching and Media: A Systematic Approach SecondEdition. Englewood Cliffs New Jersey: Arizona State University. Prentice-Hall Inc.
- Gronlund, Norman. E. 1981. *Measurement of Evaluation Teaching*. USA: Macmillan Publishing Company, Inc.
- Hadi, Sutrisno. 1980. *Statistik II*. Yogyakarta: Yayasan Penelitian Fakultas Psikologi Universitas Gajah Mada.

- Harris, David. 1969. Testing English as Second Language from Theory to Practice. New York: Regents Publishing Company, Inc.
- Haycraft, J. 1983. An introduction to English Language Teaching. Great Britain: Longman Group.
- Heaton. 1975. Writing English Language Tests. London: Longman Group Limited.
- Heriyanto, Dwi. 2005. Belajar dan Mengajar Bahasa Inggris dengan Menggunakan Teknologi Modern (Audio-Video dan Multimedia). Yogyakarta: Pustaka Widyatama.
- Hornby, A. S. 1983. Oxford Advanced Learner's Dictionary of Current English. Oxford: Oxford University Press.
- Kerlinger, F. N. 1965. *Foundation of Behaviuoral Research*. Ney york University: Holt, Rinehart Winston.
- Madsen. H. S. 1983. Technique in Testing. New York: Oxford University Press
- Manser, H. M. 1995. Oxford Learner's Pocket Dictionary. New Edition. Hongkomh: Oxford University Press.
- Mouly. 1967. Test for Experiment. New York: Mac Millan, Inc.
- Ngaraj, Geetha. 1996. English Language Teaching: Approaches, Methods and Techniques. London: Orient Longman. Ltd.
- Ribero, Tito. 2006. *Cara Mudah Membuat Animasi Dengan Macromedia Flash.* Jakarta: Dinastindo.
- Tarigan. H. G. 1989. Pengajaran Kosakata. Bandung: Angkasa.
- Uberman, Agniezka. 1998. The Use of Games for Vocabulary. Presentation and Revision. *English Teaching Forum*. Volume 36 No. 1. Jan-March. Pp 20-7
- Wallace, Michael. 1982. *Teaching Vocabulary*. London. Biddles Ltd, Guilford and Kings Lynn
- Webster, A. M. 1993. *Merriam-Webster's Collegiate Dictionary* (Eleven Edition). Massachusetts: Merriam-Webster, Inc.
- Ying, Y. S. 2001. Acquiring Vocabulary through a Context-Based Approach. English Teaching Forum: A Journal for the Teacher of English outside the United States. 39(1), 18 – 21.

http://en.wikipedia.org

http://www.macromedia.com/software/flash/open/licensing/fileformat http:// www.antimoon.com/words/vocabulary-n.htm

http:// www.olympus.net/personal/preview/definition.html http:// www.olympus.net/personal/mortenson/preview/definition.html