CHAPTER I
INTRODUCTION

A. Background of Research

"A word is a microcosm of human consciousness" (Vygotsky, 2002;1). It means all language have words. When people learn language, the first thing they absorb is words. For examples, a baby cannot read and write but what it can do is saying a word. Hence, vocabulary ability is a vital aspect in language. According to Lado, (1957: 77) vocabulary is part of language skills that used by people in communication. So, People can give and accept information by using the right words. Then, vocabulary is also used in many fields such as in education or in communication. It can influence learner's competence in writing, speaking, reading, and listening. A word has relation each other. That is why every student who learns English as second language or a certain language should understand the words.

According to Norbert (2001:11) clearly the students' needs to know the 3000 or so high frequency words of the language. However, some students still get difficulty in acquiring English vocabulary. Based on preliminary study, in the eleventh grade of SMK Muhammadiyah 2 Cibiru Bandung, many students have limited vocabulary. They were not interested in practicing English. This is because conventional media that is used in learning, So that the students are not interested in English. This made them bored, and made them difficulties in expressing their idea during the process English teaching. Furthermore, every teaching learning process will not get success very easier. Tafsir (2008:101) said

that "every student has different abilities of physic, mental, family's background, intellectual and learning approach". And, to know about student's quality, it depends on how is teaching learning process. This is because in learning process it always happens transferring of learning. It means knowledge or skill gained in one subject or situation is applied to another subject or situation.

The principles of teaching vocabulary has assumption to fit explanation on some principles of teaching vocabulary, there are: the teaching of vocabulary should be based on the students' ability, teaching of vocabulary should be suitable with student's capability, and the last words are taught from easiest to the difficult. It is one of the principles that had been found useful in all methodological decisions is the principles of time effectiveness. The key in all, vocabulary teaching is to keep motivation high while encouraging students to develop strategies that are using media such as multimedia who make students keep curious in learning process.

From the recently phenomenon, there are many students who cannot master vocabularies and the media of teaching still undeveloped. To handle the lack of vocabulary, there are some media to make students easier in studying English especially in vocabulary. Paiman (1992) in Sugiharto (1994: 162) states that instructional media can be used in the teaching of English, because they can activate and stimulate the students' interest in studying English lessons. Media can make the information more attractive. Picture and real objects are easily processed to catch and hold the young learner's attention. In its communicative role, media can function to enhance comprehension and to assist the learner in

understanding the message. According to Sadiman (2006: 6), media is a tool for transferring message from teacher to learner. Instructional media can increase the communicative power of the instruction by explaining the message contained in the instruction. It means that media is very important to teach and learn English. So, it is necessary for teachers, to develop technology on the media of teaching.

Developing technology on media teaching is to systematize the vocabulary of English and it is very useful. Norbert (2001: 257) states that advance technology will help students in collecting and analyzing current and specialized corpora, such as ESP, spoken English, and academic English. Finally, it needs to take advantage of possibilities inherent in computer-assisted learning, especially in the creation of software which is based on sound principles of vocabulary acquisition theory. There is a need for program which specializes on useful corpus, provide the expanded rehearsal, and encourage students on deeper levels and in a variety of ways as they practice vocabulary. So, the instructional media that is still seldom used in teaching learning process is Macromedia Flash. Macromedia Flash is an application that displays graphics, animation, video, and other multimedia. Flash allows animation and other media to be displayed smoothly. It is hoped that English learning process is more interactive and interested. Then, students can understand the English materials through their improvement on vocabulary's mastery.

Based on background explained above, this research focuses on the implementation and applies a type of macromedia flash at the eleventh grade of

SMK Muhammdiya 2 Bandung. This investigation formulates under the title: "The Influence of Macromedia Flash on the Students' Vocabulary Mastery".

B. The Research Questions

This research concentrates to solve the following three questions:

1. What is the students' ability in vocabulary by using Macromedia?

2. What is the students' ability in vocabulary by using discussion?

3. How significant the influences of students' ability in vocabulary through using macromedia flash?

C. The Purposes of Research

Based on the questions formulated above, the purposes of the study are:

1. To find the students' ability in vocabulary through using Macromedia.

2. To find the students' ability in vocabulary through using discussion.

3. To identity the influence of students' ability in vocabulary by using macromedia.

D. Framework of Thinking

In the past, vocabulary teaching and learning are often given little priority in second language programs, but recently there has been a renewed interest in the nature of vocabulary and its role in learning and teaching. It means that vocabulary is a vital aspect in learning English. According to Henry (2005: 48), Vocabulary is the set of words in a language that is familiar to the person and

usually develops with age, and serves as a useful and fundamental tool for communication and acquiring knowledge. In some literature, there are some definitions of vocabulary. According to Kridalaksana (1985: 67), vocabulary is a component of a language that maintains all of information about meaning and using word in a language.

From the definitions above, it shows that vocabulary is a component of language and number of words used by a person, class, and profession. In the communication and every aspect such as in trade, education, and business.

According to Elfrida (2005: 56), the principles of teaching vocabulary has assumption to fit explanation on some principles of teaching vocabulary, there are:

a. The teaching of vocabulary should be based on the students' ability.

b. The teaching of vocabulary should be suitable with student's capability.

c. The words are taught from easiest to the most difficult.

Multimedia is very useful in a lesson, because the information / educational materials through the text to be remembered well when accompanied with pictures. According to Palvio (in Rudi, 2007:99) it is described in the Dual Coding Theory, that the human cognitive system consist of two sub systems of verbal and image systems (visual), therefore, with the pictures and text can improve students memory. According to Van Els et al. (1984: 141), media is all aids which may be used by teachers and learners to attain certain educational objectives. Furthermore, media can be specified in different ways. Suleiman (1988: 67) asserts that instructional media are the media that bring information

resources/senders teachers) to the receivers (students). One kinds of multimedia that used in this research is Macromedia Flash.

Macromedia Flash is an application that displays graphics, animation, video, and other multimedia. Flash allows animation and other media to be displayed smoothly. Macromedia Flash is appropriate for learning English actually in vocabulary aspect because it shows animation and video. According to Rief in Giam (2000:61) said that based on cognitive psychology, a student will remember 10% of what he read, 20% of what he heard, 30% of what is seen, 50% of what is heard and seen, 70% of what is expressed alone, and 90% of what is done alone.

Based on the statement, giving the implication of memorable learning can be achieved if the student can see, hear and do something about the activity. To facilitate such learning, the use Macromedia Flash is very useful because it results to promote cooperative learning and interaction among students.

Finally, the relationship between Macromedia Flash and the improvement of vocabulary is to make easier students to learn and can practice it directly. This means to create a safe atmosphere to students in expressing themselves. Macromedia Flash as a tool of teaching makes easier teachers to teach vocabulary for students, because Macromedia Flash can show video and animation that students can watch and listen directly, and they can enjoy learning happily.

E. Hypothesis

Hypothesis is a temporary answer on the problem that still must be proven (UIN SGD, 2009:17). According to Arikunto (2010: 110) hypothesis is a temporary theory that needs to be tested.

From the explanation above, it can be formulated that a hypothesis of the influence of Macromedia on students' vocabulary mastery. The formulation of hypothesis is presented below:

1. H_0 accepted if $t_{account} < t_{table}$: it means that there is no significant influence of using macromedia on students' vocabulary ability.

2. H_1 accepted if $t_{account} > t_{table}$: it means that there is significant influence of using macromedia on students' vocabulary ability.

F. Methodology

1. Type of Research

The kind of research used in this investigation is quantitative research. The data collected in this investigation uses statistical calculation. Meanwhile, the method used is quasi experimental method which has the purpose of finding cause and effect (Subana, 2001: 139). So, it is used to find the effectiveness of Macromedia Flash and its influence to the students' ability and applying of vocabulary through Macromedia.

2. Research Design

The research uses Quasi-experimental study. The data which is gained by using one group pre-test and post-test design, the result of treatment can be known more accurate because it can compare before and after condition. In the collecting data, the researcher uses the score of students' pre-test and post-test. The pre-test is conducted at the beginning of the lesson in order to find out the initial differences between the control and experimental groups. The post test is conducted in order to check the difference between two groups after receiving treatment. The experimental class is taught by using Macromedia Flash, while the control class is taught by using discussion. After the scores are calculated, the researcher analyzed the result from the two groups statistically. This is calculation is aimed to know how to use Macromedia Flash and its influence to students' vocabulary.

Table 1

The Design of Research

Experimental	0_1 X 0_2
Control	0_3 - 0_4

0_1 : Students' vocabulary scores of experimental group in pre-test

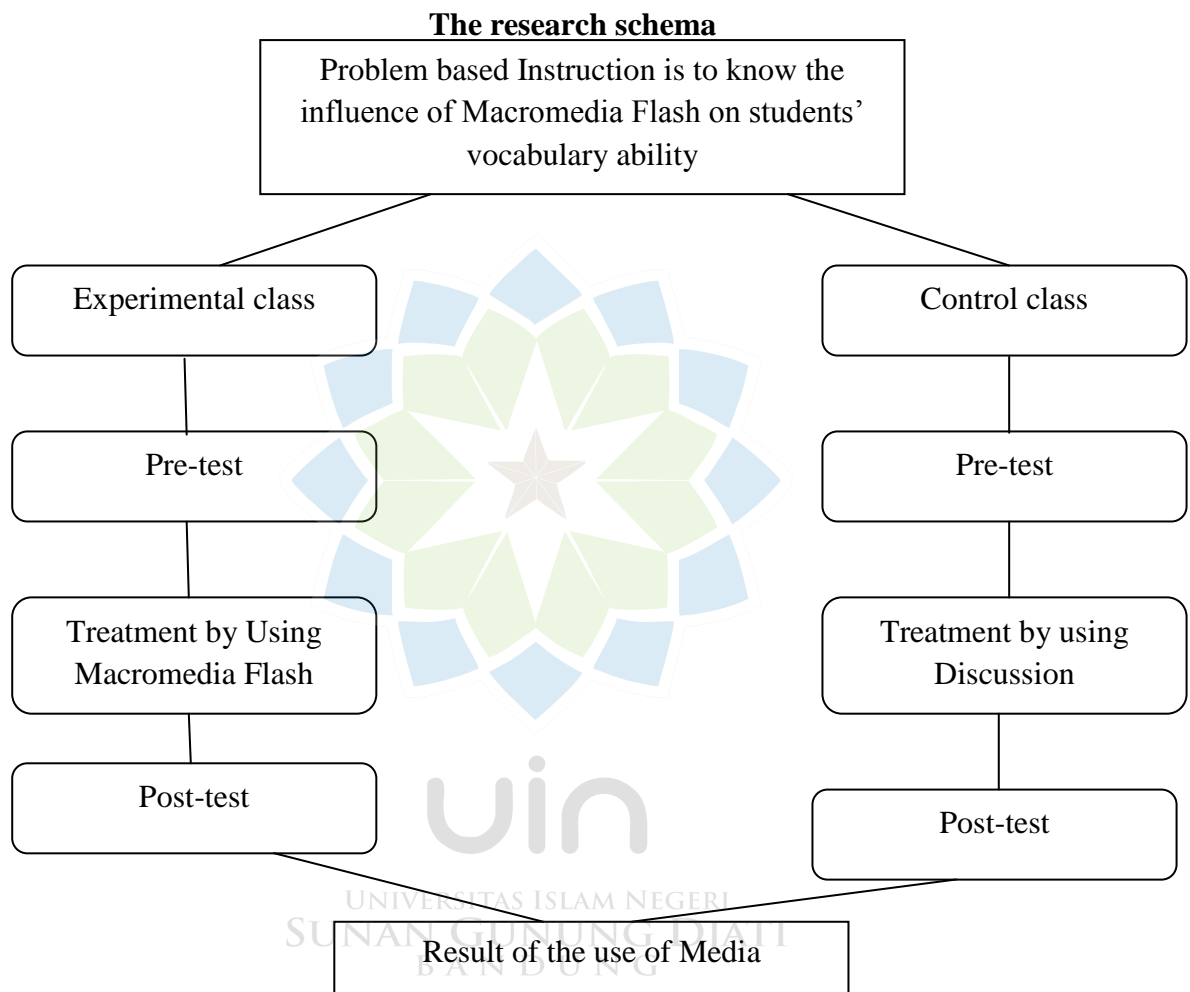0_3 : Students' vocabulary scores of control group in pre-test.

X : Macromedia Flash Treatment.

0_2 : Students' vocabulary scores of experimental group in post-test.

0_4 : Students' vocabulary scores of control group in post-test.

(Arikunto, 2010:125-126)

Table 2

The research schema

Problem based Instruction is to know the influence of Macromedia Flash on students' vocabulary ability

Experimental class	Control class
Pre-test	Pre-test
Treatment by Using Macromedia Flash	Treatment by using Discussion
Post-test	Post-test

Result of the use of Media

Here is the further explanation about the research steps:

To get information and description about English learning activity in SMK Muhammadiyah 2 Bandung, pre-research was conducted. In this step, it was conducted the study of previous research, mastery the concept and study of literature review of Macromedia Flash on students' vocabulary mastery.

The next steps is determining subject of research. This step consists of determining the class and learning material. It included selecting experimental class and control class, determining and make learning material that used in research, the material using Macromedia Flash as teaching media, making some questions for testing the question that used in pre-test and post-test, making a research performance planning that conducted, making English lesson plan by using Macromedia Flash as teaching media.

After determining the subject of research, the research performance was conducted. Pre-test was conducted to both control class and experimental class in order to collect the beginning data of the students.

Then, treatment conducted to experimental class teaching guest handling using Macromedia flash while the control class gets discussion method. Afterward, post-test was conducted to both experimental and control class. After conducting the post-test, the writer obtained the data. The data will be compared with the pre-test in order to know the result of the research.

3. **Source of Data**

a. **Population**

According to Sugiyono (2010: 117), population is generalization area that consists of object or subject that has special quality and characteristics which is applied by a researcher. The located of research is chosen at SMK Muhammadiyah 2 Cibiru Bandung. The location is appropriate to the research because there is no varieties media available for learning process and the students have problems about vocabulary, so it is found relation to this research. The total

population is about 165 students from all students at eleventh grade of SMK Muhammadiyah 2 Cibiru Bandung which consist of four classes.

b. Sample

According to Sugiono (2010: 118), sample is a part of number and characteristic which is owned by the population. Based on the statement, the total sample is about 74 students who are taken from 11 AP 4 as experiment class and 11 AP 1 as control class.

4. Techniques of Collecting Data

The techniques used in this research for collecting data are through:

a. Observation

In this technique, the data needed is outlined in guidelines, and it is collected by observing the processes of study during the treatments of research are given. It is participant observation, when the researcher stands in the research groups and plays the role as a teacher to observe the process of investigation clearly and specifically. The researcher also, observes the condition of the school completely to make the real report of its environment. Then, it has been taken from the headmaster's data of the school. It is hoped that the specific situation and condition at SMK Muhammadiyah 2 Bandung should known deeply for the complete research data.

b. Test

1. Pre-test

The implementation of pre-test is conducted in class as standardized test which has the requirement of validity and reliability tests. It is objective test; include twenty points of multiple-choice questions by forty-five minutes duration, which are related to the subject material. The pre-test is used to measure the intelligent of students on their comprehension acquisition before they are given the treatment of research.

2. Post-Test

The implementation of post-test is conducted in class as non-standardized test, which have the requirement of validity and reliability test before. It is objective test and essay test; including of twenty points multiple-choice questions. It is common multiple choice based on the subject material. The examination is conducted in forty-five minutes duration.

c. Treatment

In this research, it used treatment to know the result of Macromedia Flash on student' vocabulary mastery, the treatment is only tested in experimental class. The treatment is done for twice written based on syllabus. The first treatment is given to students after they got pre-test, and each treatment including materials that using Macromedia Flash. The second treatment is the next meeting to go on the materials. After that, both of classes get the post test. The following table is described the treatments:

No	Meeting	Materials	Process	Indicator	Evaluation
1.	Two times 2X 45	Handling Guest	Teacher gives the greeting and tells	The expression of handling guest hotel,	Completed the dialogue

	Minutes One meeting 1x45 minutes		about the aim. Then teacher give the prior knowledge about the materials. And then, teacher gives the students pre-test about materials of Guest Handling. And then introduce the Macromedia so that the students know the Macromedia. Then give the materials by using Macromedia Flash.	restaurant, office, department store by practicing with the right way.	by choosing the right vocabularies.
2.	Two times 2X 45 Minutes One meeting 1x45 minutes		Teacher goes to explain the material and make students understand the materials		
3.	Two times 2X 45 Minutes One meeting 1x45 minutes		Teacher gives the materials again by using Macromedia Flash and		

		evaluation. Is it media appropriate to students or not? Is it media can help them learning. The last teacher gives the post-test.		

5. The Analysis of Data

This research uses the pre-test and post-test to analyze the infleunce of Macromedia Flash to students' vocabulary before and after using Macromeida Flash Model. Process of analysis data is conducted after all research data is collected which involve several statistical processes, as follows:

a. To know the influence of Macromedia Flash on students' vocabulary ability pre-test by using procedures as follows:

1) Determining range (R)

R= (H-L) + 1

(Sugiyono, 2012:55)

2) Determining Class Interval (K)

K= 1+ 3, 3 x log n

$$P = \frac{R}{K}$$

3) Determining Length of Interval (P)

4) Making table of observation frequency distribution

No	Interval Class	x_i	f_i	$f_i x_i$	x_i^2	$f_i x_i^2$

5) Determining mean ($\bar{x}$)

$$\bar{x} = \frac{\sum f_1 . x_1}{f_1}$$

(Sugiyono 2012: 54)

6) Determining median (md)

$$Md = b + p\left(\frac{\frac{1}{2}n - F}{f}\right)$$

Where:

Md= Median value

b= lowest limit of interval that consist of median class

p= length of interval class

F= sum of all frequencies below median class

f= frequency of median class

(Sugiyono: 2012: 53)

7) Determining modus (Mo)

$$Mo = b + p\left(\frac{b_1}{b_1 + b_2}\right)$$

Where:

Mo= modus value

b= lowest limit of internal that consist of median class

p= length of interval class

b1= highest frequency minus frequency of previous class

b2= highest frequency minus frequency of next class

(Sugiyono, 2012: 52)

8) Determining standard deviation (S)

$$S = \sqrt{\frac{\sum fi \left(xi - \bar{x}\right)^2}{n-1}}$$

(Sugiyono, 2012:58)

9) Determining chi square x^2 count using following table and formula

Interval Class	Class Limit	ZCount	Ztable	Li	Ei	Oi	Oi - Ei	$(O_i - E_i)^2$	$\frac{(O_i - E_i)^2}{E_i}$

10) Determining Chi square (x^2)

$$x^2 = \sum \frac{(Oi - Ei)^2}{Ei}$$

11) Defining degree of (df)

df= K-3

12) Determining chi square table on significance 1%

13) Interpreting the normality

b. Homogeneity of variance test

1) Determining score F by using formula:

$$F = \frac{VK}{VD}$$

2) Determining the degree of freedom of the data

$Df_1 = n_1 - 1$

$Df_2 = n_2 - 1$

3) Concluding homogeneity of variance

- It is called homogenous if $f_{table} > f_{count}$

- It is called homogenous if $f_{table} < f_{count}$

- Hypothesis test using t-test

c. Testing the hypothesis with the using of t-test by conducting the following steps:

$$\text{T count} = \frac{M1 - M2}{\sqrt{\left(\frac{(\Sigma x^2 + \Sigma y^2)}{(N1 + N2 - 2)}\right)\left(\frac{N1 + N2}{N1.N2}\right)}}$$

d. Determining score of t_{table} with the significance 1%

e. Interpreting the hypothesis with criteria:

If $t_{count} > t_{table}$ Ha is accepted

If $t_{table} > t_{count}$ Ha is accepted

f. Determining Gain (the degree of current technique influence)

$$d = \frac{post-test\ score - pre-test\ score}{maximum\ score - pre-test\ score}$$

Table 1.2

Normal Gain Interpretation

Score	Interpretation
g >0,7	High
0.3 < g > 0.7 _ __	Average
g < 0.3	Low