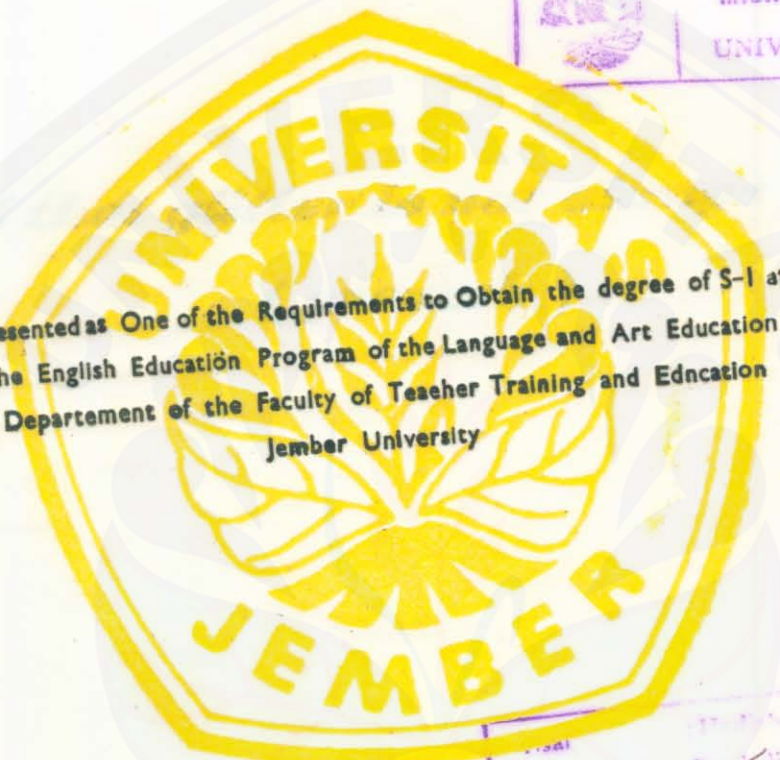# THE INFLUENCE OF THE USE OF GAMES ON THE STUDENTS' VOCABULARY ACHIEVEMENT AT SMU NEGERI 1 ARJASA, JEMBER IN THE 1999/2000 ACADEMIC YEAR

THESIS

Presented as One of the Requirements to Obtain the degree of S-I at the English Education Program of the Language and Art Education Departement of the Faculty of Teaeher Training and Edncation Jember University

By

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ENGLISH EDUCATION PROGRAM
FACULTY OF TEACHER TRAINING AND EDUCATION
JEMBER UNIVERSITY
2000

DEDICATION

I would like to dedicate this thesis to :

1. My father, Mr. Nurhasyim
2. My mother, Mrs. Lintiari
3. Both of my sister and brother
4. Someone who always faithfully leads me to finish this thesis
5. All of my friends in Gemapita and Nuansa band

APPROVAL

THE INFLUENCE OF THE USE OF GAMES ON THE STUDENTS' VOCABULARY ACHIEVEMENT AT SMU NEGERI I ARJASA, JEMBER IN THE 1999 / 2000 ACADEMIC YEAR

THESIS

Proposed for being defended to the examiners as one of the requirements to obtain the degree of S1 at the English Education Program, Department of Language and Arts, the Faculty of Teacher Training and Education, Jember University

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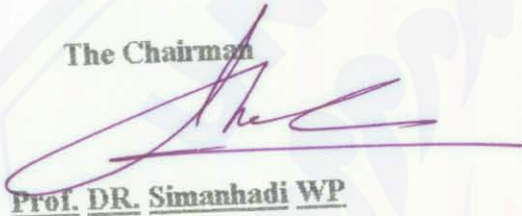
APPROVAL

This thesis is approved and received by the examination committee of the Faculty of Teacher Training and Education, Jember University.

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Firstly, I would like to express my gratitude to Allah SWT, who always gives me power and health to complete this thesis. Without His revelation, it is impossible for me to complete this thesis well.
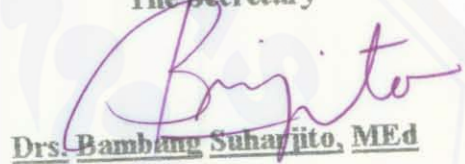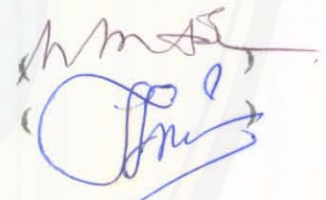
Among the persons to whom I wish to express my special appreciation are :

1. The Dean of the Faculty of Teacher Training and Education, Jember University;

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I hope the readers will find the value of this thesis. At last, I am interested in any comment given as consideration to make this thesis better.

Jember, February 2000

The writer

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P   : Volleyball court

ABSTRACT

Agus Yusmanto, 2000, The Influence of the Use of Games on the Students' Vocabulary Achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 Academic Year.

A thesis, English Education Program, Language and Art Education Department, Faculty of Teacher Training and Education, Jember University.

Consultants : (I) Dra. Wiwiek Eko B, MPd.

: (II) Drs. Bambang S, MEd.

Key words : games, vocabulary achievement

Students usually have problem dealing with English, especially on vocabulary. Games with their attractive language can stimulate the students' interest in learning English. As we know that vocabulary is one of the basic components in learning English. It is impossible for one who wants to master the four language skills without mastering the vocabulary first. In this study, the writer was presented the use of games to increase the students' vocabulary achievement.

The main problem of the study is to know whether or not there is an influence of the Use of Games on students' vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year. While the minor problems are to know whether or not there is an influence of the Use of Games on students' large reserve vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year (2) to know whether or not there is an influence of the Use of Games on students' small reserve vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

To get the respondents of this study, cluster random sampling was applied. To obtain the primary data, the test was administered. Meanwhile, the supporting data were obtained by using documentation method. To analyze the data t-test was used to find out the mean difference of each group and the value of t.

The results of statistical computation on students' vocabulary achievement of t-test was 7,38 and t-table on 5 % of significance level was 2,000. Having been compared the result of t-computation is higher than that of t-table. This means that the result was significant. Thus the null hypothesis was rejected, and the alternative hypothesis was accepted. So, there was an influence of the use of games on the students' vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

Based on the results above, it is suggested for the English teacher to apply games in the teaching learning process. Students will get a lot of fun in the process of learning English.

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CHAPTER I
INTRODUCTION

1.1 The Back ground

Motivation as a major resource has always been created by a teacher in order to attract the students in following the lesson. It is not enough for the teacher only to develop his teaching technique which depends on his own experiences without creating something new in conducting the lesson. The teacher, therefore, must consider the individual differences and resources in creating, innovating and experimenting new techniques to suit condition of the students. Dealing with this problem, Wright (1984:1) says that games help and encourage many learners to sustain their interest and work. Games also help the teacher create the contexts to make the language useful and meaningful. In line with those statements, Adenan (1992:9) says that games are obvious types for motivating the students' interest in learning language. They also make the students relax, and avoid boredom. Meanwhile, Dobson (1985:107) says that a game is a wonderful way to break the routine classroom activities by providing relaxation. In this case, Tarigan (1986:2) states that the quality of the language skill depends on the quality of the vocabularies. It means that vocabulary is so important for the basic process of learning English. The learners should develop their vocabularies if they want to master the four language skills. Rahmadi (1990:1) says that the students who are learning the four language skills usually have a problem due to the lack of mastering vocabulary. They lack of motivation in learning English because, the teacher do not create something new in presenting the material. It may be as a factor to make the students feel bored and ignore all of materials given by the teacher. Finally, the students have a problem due to the lack of mastering vocabulary.

Games as one of the types of self motivating are interesting and challenging used for the teaching language. Moreover, games with their attractive language can be

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used as the teaching aid to teach vocabulary. Games can stimulate the students' interest in learning English because the students may learn the vocabulary which is inserted on the material. Then, the students do not realize that they are learning the language. From the statements above, we can conclude that games may be used in the teaching learning process to overcome the students' problems due to the lack of the vocabulary faced by the students.

The study is intended to know the influence of the use of games on the second year students' vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

1.2 The Problem Formulation

The research problem of this study is formulated as follows :

a) Major Problem

* Is there an influence of the use of games on students' vocabulary achievement of the second year students at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year ?

b) Minor Problems

* Is there an influence of the use of games on students' large reserve vocabulary achievement of the second year students at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year ?

* Is there an influence of the use of games on students' small reserve vocabulary achievement of the second year students at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year ?

1.3. The Operational Definitions

Operational definition is needed to avoid misinterpretation in transforming the subject concerned. The operational definitions used in this study are the use of games and vocabulary achievement.

1.3.1. The Use of Games

Games with their attractive language can stimulate the students' interest in learning the language. Dealing with this problem, Nababan (1993:206) says that language games are games that use as teaching aids in teaching language. Of the same idea, Mariana and Hasbullah (1985:5.33) state that a language game is a game which is applied to teach language in the teaching learning process.

In this research, the use of games means games that are used as the aids of teaching vocabulary in the class.

1.3.2. Vocabulary Achievement

The students' vocabulary achievement refers to the results (in the form of scores) of the vocabulary test achieved by the second year students of SMU Negeri Arjasa, Jember in the 1999/2000 academic year.

1.4. The Purpose of the Study

a) Major Purpose

The major purpose of this study is to know whether there is an influence of the use of games on the second year students' vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

b) Minor Purposes

The minor purposes of this study are :

* to know whether there is an influence of the use of games on the second year students' large reserve vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

* to know whether there is an influence of the use of games on the second year students' small reserve vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

1.5. The Significances of the Study

Hopefully, this research results can give significant contribution to the following persons :

a) The English Teacher

The result are useful and helpful for the English teacher as information and consideration to improve the students' vocabulary achievement by using games in the English teaching and learning process.

b) The Students

The research dealing with games can stimulate the students' interest in learning language. Moreover, games can avoid boredom usually faced by the students in learning English. Then, the students may develop their vocabularies.

c) The Future Researchers

The result of this study can be used as an input or information for other researchers. This study was presented only 3 kinds of games, they are the last letter games, find the words and sentence and matching. So it is advisable for other researchers to apply the other games in conducting the research dealing with the similar problems.

2.2.1. Kinds of Games

Many experts define the term "games" into various kinds. Adenan (1992:13) divided the kinds of game into the last letter games, find the words and sentence, mixed stories, puzzles, a word diamond, from picture to word, picture initials, etc. Meanwhile, Napa (1991:10) divided the kinds of game into matching, missing letter, letter and number game, word selection, and snake trails.

Based on the ideas above, the kinds of games used in this research are :

2.2.1.1 The Last Letter Games

It is a kind of game in which the students find the second word based on the last letter of the first word, then the third begins with the last letter of the second word, and so on. Sometimes the last letter game can be completed by pictures. Here is the example of the last letter game :

Directions :

Read the sentences below. Then, find the words related to them. Each dash should be filled with one letter, so the first word has ten letters. The second word begins with the last letter of the first word, and the third word begins with the last letter of the second word and so on.

Example : 1. t e l e p h o n e

2. e a r

1. It is a means of communication.

2. .... is used to hear.

1. G _ _ _ _ _ _ _ _ _

2. _ _ _

3. _ _ _ _ _ _

4. _ _ _ _ _

5. _ _ _ _ _ _

1. It is an electric machine. We use it to play music.

2. It comes from a hen.

3. It is made of glass. It is used to see something better.

4. When a knife is like this, it cuts things easily.

5. We put the food in the car and went into the country to have a ------

6. _ _ _ _ _ _

7. _ _ _ _ _

8. _ _ _ _

9. _ _ _ _

10. _ _ _ t

6. He is the top man in a ship.

7. The thief came at ---------- so it was too dark to see him.

8. A scorpion uses its .... to hit his enemy.

9. The party began at nine o'clock, but he arrived at eleven o'clock, so he was two hours.........

10.

north

west —————|————— ?

south
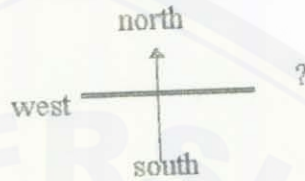
2.2.1.2 Find the Words and Sentence

Directions :

Find the appropriate words to answer the statements below. As you find the words, put the letters of each word on the jumble numbers provided. Each number is one letter, so the first word has five letters. Then, put the letter of each number in the right place to make a sentence (number 9). Number one is done for you.

1. 6 1 22 12 4
   s w e e t

2. 18 2 5 10 11

3. 15 8 9 17

4. 4 17 13 5 19

5. 1 15 7

6. 16 7 22

7. 12 20 4

8. 21 3 11 14 15

1.   Sugar is.................

2.   It used for human to cover their body.

3.   Hurry up ! You have been .... for Sixty minutes.

4.   It is a means of transportation. It has a long body.

5.   Are you late?

6.   It used to see something.

7.   We do this with our food.

8.   Do you have a ....? I want to light my cigarette.

9. The sentence : what does this sentence say? It has five words.

1	2	3	4	5	6	7	8	9	10
w			t		s				

11	12	13	14	15	16	17	18	19	20	21	22
											e

2.2.1.3 Matching

Directions : match the definitions on the right column of the following table with the words on the left one.

No.	WORDS	DEFINITIONS
1.	manager	a. minister representing the government of his country in a foreign country.
2.	author	b. story of a person's life written by himself.
3.	stationery	c. person who controls a business, a hotel, etc.
4.	lorry	d. (kinds) of tool with an indented edge, for cutting wood, metal, stone, etc.
5.	autobiography	e. science of the structure of the plant.
6.	nap	f. study of ancient things, especially remains of prehistoric times.
7.	saw	g. strong wagon, driven by steam or petrol, for carrying goods by road.
8.	ambassador	h. writing materials, etc.
9.	botany	i. writer (of a book, play, etc.)
10.	archaeology	j. Short sleep (during the day, not necessarily in bed).

2.2.2 The Significance of the Use of Games

Games have many significances concerning with the teaching learning process. Adenan (1991: 9) says that games are obvious self motivating materials that will arouse the students' interest in learning a language. Even, games not only motivate the students but also avoid boredom in the teaching learning process. In line with that statement, Mariana and Hasbullah (1985:5) state :

"Permainan juga dapat digunakan dalam proses belajar mengajar untuk mengembangkan motivasi siswa dalam belajar. Permainan dapat membantu mengurangi kebosanan siswa dalam hal ini untuk belajar bahasa".

These statements can be interpreted that games can be used to arouse the students' motivation. At the same time, games can be used to avoid students' boredom in the teaching learning process, especially in learning a language. Furthermore, language games are easy to do and prepare. Moreover, they are not only enjoyable but also challenging for the students to learn English.

Gerlach et al (1980:383) say that games have the other unique advantages as follows:

a) the students seek to solve problems they are intimately involved.
b) the students are satisfied when they sense a new insight as new ideas and concepts are formulated.
c) the students are placed in more realistic environment than any form of learning
d) a high degree of interest is generated through realistic preparation

2.2.3 Teaching Vocabulary by Using Games

The use of games as an aid in teaching learning process has been proved by the experts with supporting data in detail. Games which are used in teaching learning process are called language games (Mariana and Hasbullah 1985:5). Moreover, games can be used as the teaching aids to teach vocabulary (Nababan,1993:213). However, a teacher must consider what kind of games that will be used in teaching learning process. Dealing with the teaching of vocabulary, a teacher must select the games which are appropriate for teaching vocabulary materials. There are certain guidelines

on which the vocabulary and the games can be based. They are as follows :

2.2.3.1 Choosing Vocabulary

Haycraft (1978:44) says that there is also a need to limit the vocabulary that is introduced. If too much introduced, students will be impeded by the need to absorb too many words.

Based on Haycraft's opinion (1978:44-46), there are certain guidelines on which the choice of vocabulary can be based. They are; Commonest Word, Students' Need, Students' Language, Word Building, Topic Areas, Cross Reference and Related Structure. Each line will be discussed below :

1. Commonest Word : It is important to choose the words that students already know. A teacher will be helped by the text book where vocabulary is graded, and list of the Commonest Word is also available.

2. Students' Need : A teacher must consider about students' need when he choose the vocabularies. If students wants to know a special word, it is usually worth teaching it to them because motivation will ensure that they remember it. It is important for the teacher to know the background of the students. It will give the idea for the teacher what words are needed by the students. Students will feel frustrated if the teacher teach the material which they do not know.

3. Students'Language : If a teacher is teaching a class from one language group, he must consider the students' language. First, teacher needs to be careful with words that are similar to their language and English. Then a teacher is to be careful with words that sound the same as the students' language.

4. Words Building : It is often worth choosing a word because a general rule can be formed.

5. Topic Areas : Generally, it is easier to teach vocabulary which belongs to one area of sequence, as the students will be able to form a

pattern of related words in their mind.

6. Cross Reference : A lot of words are applicable to different situation or specialization, for instance, a teacher is choosing vocabulary connected with cars, it is worth choosing term that are also common to other means of transportation. Such as truck, bus,etc.

7. Related Structure : Many structures **'demand'** their own vocabulary. Thus, if the teacher is teaching **'going to'** he is likely to introduce a vocabulary connected with plans.

2.2.3.2. The Ways to Present Games

Games are interesting and challenging, but a teacher should select the games which are appropriate for presenting the material. Dealing with teaching vocabulary, teacher should be able to select the games which are appropriate to students capability.

In line with these statements, Gerlach *et al* (1980:383) give ideas for using games as follows :

a. games can be used to give pupils awareness of the subject being studied

b. the teacher must construct his own objective before using games

c. some teachers have succecced in developing their own games. Frequently, they involved the pupils in the development

d. the activity is not likely to be successful unless good instructional objectives are prepared first.

Based on Dobson's point of view (1985;108), playing games need many preparations. First, a teacher should make a preparation for the game. Then, read the rule of the game and try to understand how intellectual it is played. Be sure that the game the teacher selects is within the range of students' ability

Futher, Dobson gives many suggestion designed to ensure the greatest success with any game teacher selects, they are as follows :

a. make the right preparations for the games. Read the role of the game and try to

understand how to play. Gather the materials for the games that require special equipment.

b. before introducing a game to a class, ask the students if they think they would enjoy this kind of activity.

c. choose a game that allows many students to participate. If the class is large, a number of students will sit as the audience during some games. To overcome this problem, teacher should give a task to audience. In the small class, teacher should make sure that every student has an active role every time.

d. be sure that the game which is selected by a teacher is within the range of his student's ability. Although, all the game given here are easy for student of English to play, remember that students will be greatly challenged by the fact that they are playing the game for learning a language.

e. do not play a game at the beginning of the period. Save the game for use in the time toward the end of the sessions

2.3. Vocabulary Achievement

Rachmady (1990 ;1) says that students are still having a great problem with the four language skills due to lack of vocabulary achievement. For this reason, vocabulary enrichment should be provided at all level of language learning. Then, he adds that there is a class correlation between the size of one's vocabulary with intelligence possessed. Vocabularies are the best indicator of one's general intelligence. So, if we want to keep intellectually, socially and professionally, we should enlarge our vocabulary continually.

Dealing with the statements above, Yourkey (1982 : 47) says that the site of our native language vocabulary reflect our education, reading and range of interest. There is a very clear relationship between vocabulary size and professional success.

Based on the statement above, it means that vocabulary need attention in English teaching learning process. If a teacher has a desire to increase his student's

language skill, he must enlarge their students' vocabulary. In this case, Vocabulary achievement refers to the increase of the students' score results on vocabulary test given.

From the point of view of the parts of speech, vocabulary can be classified into two groups, they are as follows :

1. Large Reserve Vocabularies
2. Small Reserve Vocabularies (William, 1970:47).

The explanations of each type of the vocabulary are presented in the following parts :

2.3.1. Large Reserve Vocabulary.

Large reserve vocabularies are the group of parts of speech in which the words has a large vocabulary in relation to usage. Large reserve vocabulary consists of nouns, adjectives, verbs, and adverbs.

2.3.1.1 *Nouns.*

Nouns are words which can function as the subjects or objects of verb, or the objects of prepositions. Related to this statement, Frank (1972 : 6) says that a noun is one of the most important parts of speech. It is an arrangement to form the sentence with essential complete sentence.

1. The singular form of mass nouns (non-countable nouns) and nouns referring to abstract concepts are ordinarily used.

    example   : I would like a cup of **tea**

2. The plural form of a certain noun is ordinarily used.

    a. nouns such as **the United States** is ordinarily used with the singular form of the verb.

    example   : **The United States** is composed of 48 states.

    b. nouns such as **scissors, tongs, pants, trousers, shorts** are ordinarily used with the plural of the verb.

    example   : My **scissors need** sharpening

    c. nouns such as **mathematics, statistics, economics, politics, physics,**

acoustics, are used with the singular form of the verb when they refer to an area of study or an activity that is thought of as a unit.

example : **Politics** is his major field of interest

3. The same forms of a few nouns are ordinarily used as both singular and plural noun.

example : We caught several **fish**, including a **trout** and three **salmon**.

2.3.1.2 Adjectives

Frank (1972:109) states that adjective is a modifier that has the grammatical property of comparison. Meanwhile, Pyle and Munoz (1972:106) classified adjectives into two categories, they are descriptive and limiting. Descriptive adjectives are those which describe the column size, or quality of person or thing (**beautiful, red, large, etc.**). Limiting adjectives describe quality, distance etc. (**first, one, possessive , cardinal number, etc.**).

example : She looks so **beautiful**.

She is my **first** love.

2.3.1.3 Verbs

Frank (1972: 47) states that the verb is the most complex part of speech. It's varying arrangements with noun determine the different kinds of sentences - **statements, questions, command, explanation.** Meanwhile, kinds of verbs are auxiliary verbs, linking verbs, intransitive verbs, and transitive verbs.

example : He **writes** the poem.

Do you like beer ?

2.3.1.4 Adverbs

Pyle and Munoz (1987 : 107) define adverb as a word that modifies verb, adjectives, or other adverbs. Meanwhile, kinds of adverbs are adverbs of manner, place, time, frequency, sentence, degree, interrogative, relative.

Example : John is doing a job **intensively**.

They are calculating the material **accurately**.

2.3.2 Small Reserve Vocabulary

Small reserve vocabulary is the opposite of large reserve vocabulary. It consists of pronouns, conjunctions, interjections, auxiliaries, article and prepositions. Here are the explanation including the example of each kinds of small reserve vocabulary.

2.3.2.1 Pronouns

Frank (1972:20) considers pronouns as a sub class of a noun. There are five forms of pronouns in English, they are subjective pronouns, objective pronouns, possessive pronouns, possessive adjectives, and reflexive pronouns.

1. Subjective Pronouns : It occurs in the subject position of sentence or after the verbs **be**.

 Example : I am doing the homework.

2. Objective Pronouns : It occurs in complement position or after preposition unless the preposition introduces a new clause.

 Example : They asked me to **go**.

 John told him **a tragedy**.

3. Possessive Adjectives : It is not the same as possessive pronouns. These simply modify, rather than replace nouns.

 Example : He has passed the **life's best** moment.

 A tree drops **its** leaves in autumn.

4. Possessive Pronouns : It can not precede a noun but it replaces the noun.

 Example : This book is **yours**.

 This room is **ours**.

5. Reflexive Pronouns : It usually follows the verb and indicates that the subject is both giving and receiving the action.

 Example : She hurts **herself**.

I cut **myself.**

2.3.2.3 Interjection

Hornby (1987:445) defines that interjection is a word or phrase used as an exclamation.

Example : **Gee!!!, For Goodness sake!!!**

2.3.2.4 Auxiliaries

An auxiliary is a word that adds the structure meaning or semantic coloring to verbs carrying the full burden of lexical meaning (Frank,1972:54). Auxiliaries consisits of **be** and **modal.**

Example : **May** I leave now ?

       Can I borrow your book ?

2.3.2.5 Articles

The words **a/an** (the indefinite article) and **the** (the definite article) are called articles (Khron,1984:54). Furthermore, Pyle and munoz (1987 : 108) explain about the usage of **a/an** and **the** as follow:

Example : Please give me **a pencil**.

       Please give me **an apple**.

       Please give me **the pencil** on **the table**

2.3.2.6 Prepositions

Prepositions are words normally placed before nouns or pronouns. Prepositions can also be followed by verbs but, except after **but** and **except**, the verb must in the gerund form (Thompson and Martinet, 1986 : 91). Meanwhile, prepositions consists of prepositions of time, place, and manner.

Example : **To** whom were you talking ?

       The people **with** whom I was traveling

2.4 Review on the Influence of the Use of Games on the Teaching of Vocabulary.

Gerlach *et al* (1980:380) state that game is a simplified model of real life situation that provides students with vicarious participation in variety of roles and events. Furthermore, Nababan (1993 :206) defines language games as games which are used in teaching learning process as teaching media. Dealing with the statement above, Adenan (1992:9) says that games are an obvious self motivating material that will arouse students' interest in language learning. It makes students become relax and avoid boredom.

Teacher can employ a variety of different activities in introducing vocabulary. Games could be supplemented to a formal lesson in order to make students easier to understand. As a result, games can be used to teach vocabulary in order to make the material more enjoyable, intensive and challenging. Moreover, students have a lot of fun in learning the material given by the teacher.

2.5 Hypothesis

Nasution (1987:61) says that hypothesis is a tentative statement as a temporary assumption or supposition for everything which we investigate as an effort to understand it.

Meanwhile, Organ (1985:85) states the function of hypothesis as follows:

a) reaching a conclusion of the problem

b) clarifying a puzzling condition

c) getting direction for the step in the investigation

d) making a possible prediction.

Considering the statements above, we can see that hypothesis is not the final decision because it must be proved with the empirical data in detail.

In this research there are two kinds of hypothesis, namely major hypothesis and minor hypothesis.

a) **Major Hypothesis**

1. There is an influence of the use of games on the students' vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

B) **Minor Hypothesis**

1. There is an influence of the use of games on the students' large reserve vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

2. There is an influence of the use of games on the students' small reserve vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.
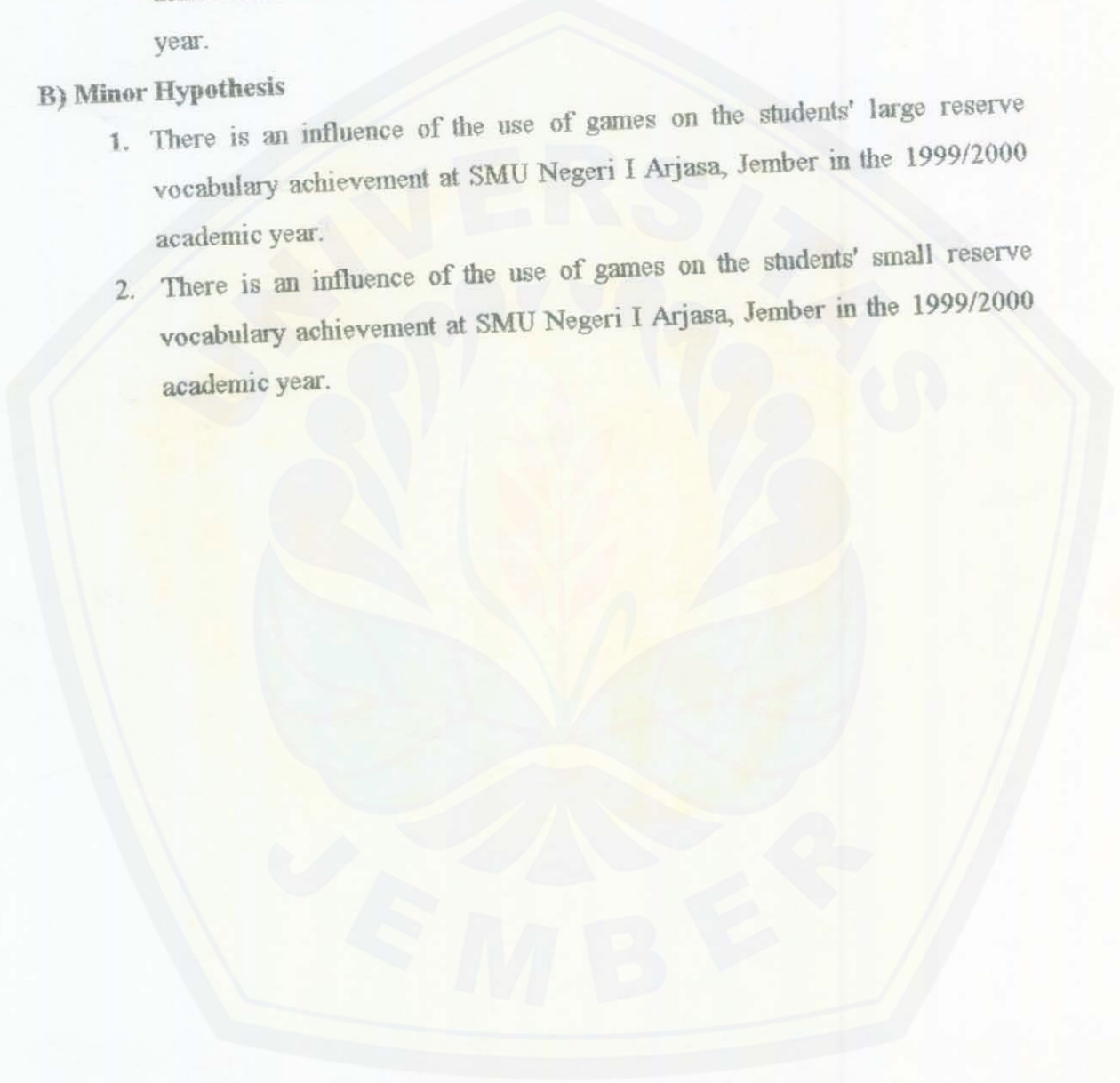
CHAPTER III
RESEARCH METHODS

3.1 The Experimental Design

This study was used the kind of quasi experimental research. According to Millan (1992:173-182), an experimental design is used to investigate cause-effect relationship. There are many types of experimental designs, such as : single group posttest - only design, single group pretest - posttest design, non-equivalent group pretest - posttest design, non-equivalent group posttest - only design, randomized groups pre test - posttest design, and factorial experimental design. This study is an experimental research that uses non equivalent group posttest - only design. In this design, there are two groups of subjects (A and B). One group (A) receives the treatment, and then takes the posttest (O). The other group (B) receives no treatment at all, and takes the posttest (O). The group (A) is the experimental group, while the Group (B) is considered to be a "control" group because they do not receive any type of treatment. In conducting this study, six classes of the existing class were given pretest before the writer determined which one belonged to the experimental and which one belonged to the control group. After administering the pretest, the writer counted the mean difference of the six classes to find out the homogeneity. Then, two classes which have the same capability were determined to be the experimental group and the control group by using cluster random sampling. The treatment of the use of games was conducted for 3 meetings to the experimental group. Thus, to obtain the primary data about the students' vocabulary achievement, the post test was administered to both the experimental group and the control group after the treatment. The test result was analyzed by using t-test formula to find out the mean difference of each group. Meanwhile, the schema of this design is as follows :

	Treatment	Posttest
Experimental Group(A) ———→	X ———→	O
Control group (B) ———→	———————→	O

19
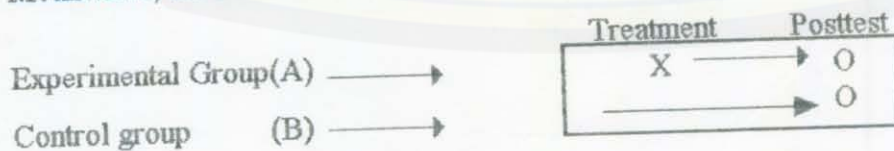
Note : O : Posttest

X : Treatment

Meanwhile, the design of the research procedure used in conducting this study are as follows : (1) identify the problem and formulate them specifically, (2) choose the research area, (3) give pre-test to the existing classes to find out the homogeneity, (4) use F-test to measure the mean difference of these classes, thus determined two classes as the experimental group and the control group, (5) give a treatment to the experimental group, (6) give posttest with the same test to both of the experimental group and the control group, (7) use t-test to analyze whether the results were significant or not. Thus, the lesson plan used in conducting the treatment can be seen in Appendix 11.

3.2 Area Determination Method

In this study, SMU Negeri I Arjasa, Jember was chosen as the research area with the consideration that the head master has given permission and facilities to conduct this study.

3.3 Respondents Determination Method

The respondents of this study were taken from the second year students of SMU Negeri I Arjasa, Jember in the 1999/2000 academic year. The total number of the second year students of SMU Negeri I Arjasa, Jember is 234 students which are divided into six classes and each class has about 39 students.

In this study, cluster random sampling method was used to determine the sample. In this case, two classes were chosen as the experimental group and the other as the control group after the pretest. In determining the samples of the study, homogeneity was under consideration. It means that the two classes that were chosen as the samples of the study should have the same characteristics of homogeneity, such as the same teacher, condition, material, motivation, and capability.

3.4 Data Collection Methods

In conducting a research, it is essential for the researcher to collect the data needed as the data are useful for the research conclusion. The primary data are the

students' vocabulary achievement manifested in the vocabulary test given, and the secondary data are the supporting data about the school condition, such as classroom activities, school personnel, and the school facilities. To get the data, two methods were employed, namely documentation and test.

3.4.1 Documentation

Documentation method is a method of collecting data by recording the documentary sources systematically. In the documentation method, the writer investigates the written materials such as books, magazines, documents, notes of meeting, etc. (Arikunto, 1993:131).

In this research, the supporting data obtained through document resources were the list and names of the respondents, the list of the teachers, and the school facilities of SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

3.4.2 Test

Based on the person who constructs, test can be divided into two kinds, they are standardized test and teacher-made test (Arikunto, 1993; 197). Meanwhile, based on the way of scoring, test can be divided into two kinds, they are objective test and subjective test.

Based on the explanations above, the test used to measure the students' vocabulary achievement in this study was teacher-made test in the form of objective test. It consisted of 80 items in the form of the last letter games(20 items), find the words sentence (20 items) and matching (40 items).

In addition, there are two kinds of requirements of a good test instrument. As it is said by Arikunto (1993: 136) that the instrument of the research is valid when it measured what should be measured, and it is reliable when it is good enough to collect believable data.

Dealing with the validity, the test used in this study refers to the content

validity. It means that the instrument constructed was suitable with the material stated in compulsary book and 1994 curriculum of SMU. Dealing with this, Sudjana (1989:13) says that the instrument may have the content validity if it is covers about the materials that should be measured, then supported by the consideration of the curriculum and the guiding book.

Dealing with the reliability, Sudjana (1989:16) says that the instruments may have a good reliability if it has a reliable or continual in scoring the test results. It means that whenever the test is used in scoring the ability or the achievement of the materials of the same students in different time, the results must be the same.

3.5. Data Analysis Method

The data analysis method used in this study was quantitative statistical method. It was used to analyze the data about the students' scores of vocabulary test. This method was aimed at calculating the mean score of the experimental group which was given the treatment on the use of games and the mean score of the control group which was not given the treatment. Then, to compare the mean difference between the experimental group and the control group, this study employs the formula of the **t-test**. The formulation of the **t-test** was as follows :

$$t = \frac{MA - MB}{\sqrt{\left(\dfrac{\sum Xa^2 + \sum Xb^2}{Na + Nb - 2}\right)\left(\dfrac{1}{Na} + \dfrac{1}{Nb}\right)}}$$

Notes

t	= The coefficient correlation
MA	= Mean of Group A (experimental group)
MB	= Mean of group B (control group)
$\sum Xa^2$	= the total number of individual scores deviation of group A

$\sum Xb^2$ = the total number of individual scores deviation of group B

N   = the total number of the respondents

Thus, the study employed the formula of t-test, which was intended to test the mean differences of the experimental and the control group. This is in line with Arikunto's statement (1991:261) that to check or to test the mean difference of both groups in which one is given treatment while the other is not given, it is better if to employ the formula of **t-test** to check the influence of the treatment. Then, the degree of freedom is **Na + Nb – 2** and the result is consulted with the t-table of **5 % of significant level**. If the result of t-statistical is higher than that of the t-table, it means that the null hypothesis is rejected and the result of this research is significant and vice versa.

Finally, if the result is significant, we can continue this analysis by employing the **Degree of Relative Effectiveness (DRE)** in order to know the influence on the use of games to students' vocabulary achievement. The formula of DRE is as follows :

$$DRE = \frac{MA - MB}{MB} \times 100\% = \dots\dots\%$$

Note :

    DRE   = Degree of relative effectiveness

    MA   = Mean of experimental group

    MB   = Mean of control group

    (Adapted from Sulthon, 1996 : 16)

CHAPTER IV
RESULTS AND DATA ANALYSIS

4.1 The Result of Documentation

Documentation was used to obtain the supporting data. Here is the result of the documentation :

4.1.1 The Brief History of SMU Negeri I Arjasa, Jember

SMU Negeri I Arjasa which is located at Jl. Sultan Agung 24 Arjasa Jember, was built in 1991, based on the decree of Mendikbud RI on December 17th 1991 no. 28948/104/C/1991, However, the school is still joined with SMUN 2 Jember, as it has no head master.

Mr. Warsito was the principal of SMU Negeri I Arjasa Jember from 13th January 1993 until Mei 3rd 1996. Then, since Mei 4th 1996 Mr. Sungkowo has been the head master of SMU Negeri I Arjasa Jember to replace Mr. Warsito.

A number of teachers are employed in this school. There are 43 teachers who support the teaching learning process. Further information can be seen in Appendix 8.

4.1.2 Respondents of the Research

The total number of the second year students of SMU Negeri I Arjasa, jember in the 1999/2000 academic year was 234 students. They were divided into 6 classes. Two classes were taken as the samples of this study in which one was chosen as the experimental group, while the other as the control group. Before the writer determined which classes were chosen as the experimental group and the control group, all of the existing classes were given the pre-test of vocabulary. The pre-test was given to find out the homogeneity of the respondents. Meanwhile, the Variant Analysis was used to test the homogeneity of the results of the pre-test. The following are the results of the pre-test of the six classes :

Table 1. The Students' Scores of the Pre-test

NR	II-1		II-2		II-3		II-4		II-5		II-6	
	X_1	$X^2 1$	X_2	$X^2 2$	X_3	$X^2 3$	X_4	$X^2 4$	X_5	$X^2 5$	X_6	$X^2 6$
1.	65	4225	60	3600	63	3969	64	4096	65	4225	70	4900
2.	63	3969	58	3364	65	4225	64	4096	65	4225	67	4489
3.	70	4900	63	3969	70	4900	67	4489	68	4624	74	5476
4.	61	3721	65	4225	67	4489	63	3969	74	5476	65	4225
5.	69	4761	71	5041	68	4624	68	4624	69	4761	63	3969
6.	67	4489	73	5329	67	4489	65	4225	67	4489	-	-
7.	70	4900	58	3364	69	4761	65	4225	68	4624	61	3721
8.	64	4096	61	3721	70	4900	70	4900	67	4489	61	3721
9.	70	4900	63	3969	72	5184	71	5041	68	4624	71	5041
10.	65	4225	67	4489	73	5329	67	4489	67	4489	73	5329
11.	60	3600	71	5041	67	4489	67	4489	-	-	60	3600
12.	62	3844	71	5041	64	4096	-	-	65	4225	60	3600
13.	67	4489	67	4489	63	3969	60	3600	67	4489	58	3364
14.	68	4624	64	4096	62	3844	63	3969	65	4225	59	3481
15.	60	3600	60	3600	59	3481	64	4096	69	4761	63	3969
16.	65	4225	61	3721	-	-	58	3364	75	5625	61	3721
17.	67	4489	60	3600	70	4900	59	3481	76	5776	62	3844
18.	72	5184	59	3481	72	5184	64	4096	69	4761	61	3721
19.	67	4489	70	4900	70	4900	65	4225	69	4761	63	3969
20.	65	4225	68	4624	62	3844	70	4900	73	5329	64	4096
21.	68	4624	74	5476	67	4489	67	4489	73	5329	65	4225
22.	68	4624	68	4624	64	4096	63	3969	65	4225	61	3721
23.	59	3481	67	4489	65	4225	63	3969	55	3025	61	3721
24.	73	5329	50	2500	62	3844	67	4489	68	4624	60	3600
25.	62	3844	53	2809	61	3721	65	4225	75	5625	61	3721
26.	70	4900	63	3969	60	3600	65	4225	68	4624	63	3969
27.	67	4489	65	4225	69	4761	70	4900	66	4356	64	4096
28.	69	4761	67	4489	68	4624	71	5041	61	3721	64	4096
29.	70	4900	78	6084	67	4489	61	3721	73	5329	61	3721
30.	59	3481	67	4489	65	4225	66	4356	67	4489	62	3844
31.	58	3364	57	3249	73	5329	58	3364	58	3364	58	3364
32.	58	3364	-	-	70	4900	59	3481	61	3721	62	3844
33.	67	4489	61	3721	59	3481	61	3721	61	3721	50	2500
34.	-	-	63	3969	58	3364	60	3600	74	5476	55	3025
35.	63	3969	71	5041	68	3969	59	3481	67	4489	54	2916
36.	64	4096	73	5329	67	4489	69	4761	69	4761	60	3600
37.	64	4096	70	4900	60	3600	64	4096	69	4761	61	3721
38.	72	5184	69	4761	61	3721	63	3969	65	4225	62	3844
39.	73	5329	70	4900	65	4225	60	3600	64	4096	67	4489
	2501	165279	2476	162688	2502	164729	2445	157831	1887	127913	2028	125194

Table 2. The Result of The Computation on the Variant Analysis

	X-1	X-2	X-3	X-4	X-5	X-6	$\sum$ (total)
Nk	38	38	38	38	38	38	228
$\sum Xk$	2501	2476	2502	2445	2565	2367	14856
$\sum X^2 k$	6255001	6130576	6260004	5978025	6579225	5602689	36805520
M	65,81	65,15	65,84	64,34	67,5	62,28	390,92

$$FO : \frac{MSB}{MSW}$$

Where :

FO : The Observation

MSB : Mean Square Between

MSW : Mean Square Within

Here is the result of the Variant Analysis computation of the six classes which was given the pre-test.

The first step is to find the total sum of squares.

$$TSS = \sum X^2 t - \frac{(Xt)^2}{N}$$

$$TSS = 36805520 - \frac{(14856)^2}{228}$$

$$TSS = 36805520 - 967985,68$$

$$TSS = 35837534,32$$

The second step is to find the sum of squares between groups.

$$SSB = \frac{\sum(\sum Xk)^2}{nk} - \frac{(\sum Xt)^2}{N}$$

$$SSB = \frac{(2501)^2}{38} + \frac{(2476)^2}{38} + \frac{(2502)^2}{38} + \frac{(2445)^2}{38} + \frac{(2565)^2}{38} + \frac{(2367)^2}{38} - \frac{(14856)^2}{228}$$

$$SSB = 164605,28 + 161330.94 + 164736,94 + 157316,44 + 173137,5 + 147439,18 - 967985,68$$

$$SSB = 580,6$$

The third step is to find the sum of squares within groups.

$$SSW = TSS - SSB$$

$$SSW = 35837534,32 - 580,6$$

$$SSW = 35836953,72$$

$$TDF = N - 1$$

$$TDF = 228 - 1 = 227$$

$$DFB = K - 1$$

$$DFB = 6 - 1 = 5$$

$$DFW = N - K$$

$$DFW = 228 - 6 = 222$$

$$MSB = SSB : DFB$$

$$MSB = 580,6 : 5 = 116,12$$

$$MSW = SSW : DFW$$

$$MSW = 35836953,72 : 222 = 161427,72$$

$$FO = \frac{MSB}{MSW}$$

$$FO = 116,12 : 161427,72 = 0,0007$$

Note :

TSS = total sum of square

SSB = sum of squares between groups

SSW = sum of squares within the groups

TDF = total degree of freedom

DFB   = degree of freedom between groups

DFW   = degree of freedom within groups

MSB   = mean square between

MSW = mean square within

To prove whether the computation result is significant or not it should be consulted to the F-table with the level of significance 5 %.

The result of F-statistical computation of f-test is 0,0007 and F-table on 5 % of significance level is 2,26 (see Appendix 10). Having been compared, F-computation is lower than that of F-table, so the result is non significant. This means that there is no difference from II_1 until II_6 as these classes are homogeneous. Two classes which have the nearest mean difference were determined as the experimental group and the control group they are II_1 and II_3. The names of the respondents can be seen in Appendices 6 and 7.

4.2 The Result of theTest

After giving the treatment in three times of mettings for two weeks, the students were given the test of vocabulary. Meanwhile, the results of the students' scores of Post-test on vocabulary are presented in the following table :

Table 3. The Scores of the Students' Vocabulary Posttest of Vocabulary of the Experimental Group and the Control Group.

NR	EXPERIMENTAL GROUP (II-3)		CONTROL GROUP (II-1)	
	Xa	Xa^2	Xb	Xb^2
1.	83	6889	69	4761
2.	85	7225	72	5184
3.	96	9216	71	5041
4.	77	5929	71	5041
5.	79	6241	72	5184
6.	70	4900	76	5776
7.	89	7921	79	6241

8.	80	6400	78	6084
9.	86	7396	78	6084
10.	91	8281	76	5776
11.	91	8281	70	4900
12.	72	5184	79	6241
13.	82	6724	67	4489
14.	77	5929	79	6241
15.	85	7225	79	6241
16.	83	6889	77	5929
17.	91	8281	-	-
18.	90	8100	71	5041
19.	84	7056	74	5476
20.	89	7921	75	5625
21.	-	-	73	5329
22.	89	7921	77	5929
23.	77	5929	70	4900
24.	95	9025	68	4624
25.	74	5476	73	5329
26.	79	6241	76	5776
27.	79	6241	78	6084
28.	85	7225	79	6241
29.	87	7569	79	6241
30.	88	7744	77	5929
31.	-	-	76	5776
32.	97	9409	75	5625
33.	84	7056	74	5476
34.	91	8281	-	-
35.	75	5625	78	6084
36.	78	6084	79	6241
37.	83	6889	69	4761
38.	91	8281	75	5625
39.	-	-	78	6084
	3032	256984	2767	207409

4.3 Data Analysis and Hypothesis Verification

After getting the data, t - test formula was used to analyze the result of the students' scores on the vocabulary test given and to prove the hypothesis.

The hypotheses of this research are stated as follows :

The Major alternative hypothesis (Ha) : There is an influence of the use of games on the students' vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year. Then, it was changed into the null hypothesis (Ho) : There is no influence of the use of games on the students' vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

The Minor alternative hypotheses (Ha) are:

a. There is an influence of the use of games on the students' large reserve vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

Then it was changed into the null hypothesis (Ho) : There is no influence of the use of games on the students' Large reserve vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

b. There is an influence of the use of games on the students' small reserve vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

It was changed into the null hypothesis (Ho) : There is no influence of the use of games on the students' small reserve vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

Here is the analysis of the data (the students' scores of post-test) by using the t - test formula :

1. The first step was to multiply the individual scores to find the sum of them (ΣX). Then, to find the mean of each group with formula :

$$M = \frac{\Sigma X}{n}$$

Where : ΣX : the total number of individual score

n : the total number of the students of each group

2. The second step was to find the individual scores deviation of each group with the formula :

$$\Sigma X^2 = \Sigma x^2 - \frac{(\Sigma x)^2}{n}$$

Where :

ΣX^2 : The total number of individual score deviation

$(\Sigma x)^2$: The total number of individual score

3. The third step is to multiply the t-test formula :

$$t = \frac{MA - MB}{\sqrt{\left(\frac{\sum Xa^2 + \sum Xb^2}{Na + Nb - 2}\right)\left(\frac{1}{Na} + \frac{1}{Nb}\right)}}$$

The following is the statistical analysis of the students' score of post-test on vocabulary achievement.

$$Ma = \frac{\Sigma xa}{na} \qquad\qquad Mb = \frac{\Sigma xb}{nb}$$

$$= \frac{3032}{36} \qquad\qquad\quad = \frac{2767}{37}$$

$$= 84,22 \qquad\qquad\qquad = 74,78$$

$$\Sigma Xa^2 = \Sigma x^2 a - \frac{(\Sigma xa)^2}{na}$$

$$= 256984 - 255361,78$$

$$= 1622,22$$

$$\Sigma Xb^2 = \Sigma x^2 b - \frac{(\Sigma xb)^2}{nb}$$

$$= 207409 - 206926,73$$

$$= 482,27$$

$$t = \frac{MA - MB}{\sqrt{\left(\dfrac{\sum Xa^2 + \sum Xb^2}{Na + Nb - 2}\right)\left(\dfrac{1}{Na} + \dfrac{1}{Nb}\right)}}$$

$$= \frac{84,22 - 74,78}{\sqrt{\left[\dfrac{1622,22 + 482,27}{36 + 37 - 2}\right]\left[\dfrac{1+1}{36 \quad 37}\right]}}$$

$$= \frac{9,44}{\sqrt{\left[\dfrac{2104,49}{71}\right]\left[0,028 + 0,027\right]}}$$

$$= \frac{9,44}{\sqrt{(29,64)(0,055)}}$$

$$= \frac{9,44}{\sqrt{1,63}}$$

$$= \frac{9,44}{1,28}$$

$$= 7,38$$

The result of statistical computation of t-test is 7,38 and t-table on 5 % of significance level is 2,000 (see Appendix 9). Having been compared the result of t-computation is higher than that of t-table. This means that the result is significant. Thus, the null hypothesis is rejected, and the alternative hypothesis is accepted. So, there is an influence of the use of games on the students' vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

Finally, if the result is significant, we can continue this analysis by employing the **Degree of Relative Effectiveness (DRE)** in order to know the

influence of the use of games on students' vocabulary achievement. The formula of DRE is as follows

$$DRE = \frac{Ma - Mb}{Mb} \times 100\% = ...\%$$

$$DRE = \frac{84,22 - 74,78}{74,78} \times 100\% = 12,6\%$$

Based on the result of the analysis above, it can be concluded that the use of games has 12,6% degree of relative effectiveness on the students' vocabulary achievement. It means that there is an influence of the use of games to increase the students' vocabulary achievement.

The following table shows the students' scores of large reserve vocabulary achievement :

Table 4. The Students' Scores of Large Reserve Vocabulary Achievement.

NR	EXPERIMENTAL GROUP (II-3)		CONTROL GROUP (II-1)	
	Xa	Xa²	Xb	Xb²
1.	45	2025	40	1600
2.	48	2304	44	1936
3.	48	2304	42	1764
4.	42	1764	39	1521
5.	47	2209	42	1764
6.	43	1849	41	1681
7.	48	2304	44	1936
8.	47	2209	44	1936
9.	42	1764	43	1849
10.	47	2209	44	1936
11.	47	2209	41	1681
12.	47	2209	43	1849
13.	44	1936	41	1681
14.	43	1849	45	2025
15.	47	2209	47	2209

16.	47	2209	47	2209
17.	42	1764	44	1936
18.	49	2401	44	1936
19.	47	2209	44	1936
20.	47	2209	-	-
21.	-	-	41	1681
22.	44	1936	44	1936
23.	40	1600	40	1600
24.	47	2209	38	1444
25.	44	1936	41	1681
26.	47	2209	44	1936
27.	44	1936	44	1936
28.	48	2304	45	2025
29.	47	2209	44	1936
30.	48	2304	45	2025
31.	-	-	44	1936
32.	48	2304	41	1681
33.	47	2209	40	1600
34.	47	2209	-	-
35.	47	2209	44	1936
36.	48	2304	41	1681
37.	45	2025	43	1849
38.	47	2209	42	1764
39.	-	-	47	2209
	1655	76257	1587	68241

The following is the statistical analysis of t-test formula on the students' score of post-test on large reserve vocabulary :

$$Ma = \frac{\sum xa}{na} \qquad Mb = \frac{\sum xb}{nb}$$

$$= \frac{1655}{36} \qquad = \frac{1587}{37}$$

$$= 45,97 \qquad = 42,89$$

$$\sum Xa^2 = \sum x^2 a - \frac{(\sum xa)^2}{na}$$
$$= 76257 - 76084,03$$
$$= 172,97$$

$$\sum Xb^2 = \sum x^2 b - \frac{(\sum xb)^2}{nb}$$
$$= 68241 - 68069,43$$
$$= 171,57$$

$$t = \frac{MA - MB}{\sqrt{\left(\dfrac{\sum Xa^2 + \sum Xb^2}{Na + Nb - 2}\right)\left(\dfrac{1}{Na} + \dfrac{1}{Nb}\right)}}$$

$$= \frac{45,97 - 42,89}{\sqrt{\left[\dfrac{172,97 + 171,57}{36 + 37 - 2}\right]\left[\dfrac{1}{36} + \dfrac{1}{37}\right]}}$$

$$= \frac{3,08}{\sqrt{\left[\dfrac{344,54}{71}\right]\left[0,028 + 0,027\right]}}$$

$$= \frac{3,08}{\sqrt{(4,85)(0,055)}}$$

$$= \frac{3,08}{\sqrt{0,27}} = \frac{3,08}{0,52}$$

$$= 5,92$$

The result of statistical computation of t-test is 5,92 and t-table on 5 % of significance level is 2,000 (see Appendix 9). Having been compared the result of t-computation is higher than that of t-table, so the result is significant. It means that the null hypothesis is rejected, and the alternative hypothesis is accepted. So, there is an

influence of the use of games on students' large reserve vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

Finally, if the result is significant, we can continue this analysis by employing the **Degree of Relative Effectiveness (DRE)** in order to know the influence of the use of games on the large reserve students' vocabulary achievement. The formula of DRE is as follows :

$$DRE = \frac{Ma - Mb}{Mb} \times 100\% = \ldots\ldots\%$$

$$DRE = \frac{45,97 - 42,89}{42,89} \times 100\% = 7,18\%$$

Based on the result of the analysis above, it can be concluded that the use of games has 7,18% of the degree of relative effectiveness on the students' large reserve vocabulary achievement. It means that the use of games has an influence to increase the students' large reserve vocabulary achievement.

The following table shows the statistical analysis of the students' scores of post-test on small reserve vocabulary :

Table 5. The Students' Scores of Small Reserve Vocabulary.

NR	EXPERIMENTAL GROUP (II-3)		CONTROL GROUP (II-1)	
	Xa	$X^2 a$	Xb	$X^2 b$
1.	37	1369	29	841
2.	37	1369	29	841
3.	49	2401	29	841
4.	35	1225	31	961
5.	32	1024	30	900
6.	27	729	35	1225
7.	41	1681	35	1225
8.	34	1156	34	1156

No.				
9.	49	2401	35	1225
10.	49	2401	31	961
11.	44	1936	25	625
12.	25	625	36	1296
13.	37	1369	26	676
14.	34	1156	34	1156
15.	39	1521	32	1024
16.	36	1296	30	900
17.	49	2401	26	676
18.	41	1681	30	900
19.	37	1369	31	961
20.	42	1764	-	-
21.	-	-	31	961
22.	44	1936	32	1024
23.	44	1936	30	900
24.	49	2401	30	900
25.	35	1225	32	1024
26.	37	1369	31	961
27.	35	1225	34	1156
28.	37	1369	34	1156
29.	40	1600	35	1225
30.	40	1600	31	961
31.	-	-	32	1024
32.	49	2401	34	1156
33.	37	1369	34	1156
34.	44	1936	-	-
35.	35	1225	34	1156
36.	30	900	37	1369
37.	37	1369	26	676
38.	44	1936	32	1024
39.	-	-	31	961
	1411	56671	1168	37180

The following is the statistical analysis of t-test formula on the students' score of post-test on the small reserve students' vocabulary achievement :

$$Ma = \frac{\sum xa}{na} \qquad Mb = \frac{\sum xb}{nb}$$

$$= \frac{1411}{36} \qquad\qquad = \frac{1168}{37}$$

$$= 39,19 \qquad\qquad = 31,56$$

$$\sum Xa^2 = \sum x^2 a - \frac{(\sum xa)^2}{na}$$

$$= 56671 - 55303,36$$

$$= 1367,64$$

$$\sum Xb^2 = \sum x^2 b - \frac{(\sum xb)^2}{nb}$$

$$= 37180 - 36870,91$$

$$= 309,09$$

$$t = \frac{MA - MB}{\sqrt{\left(\dfrac{\sum Xa^2 + \sum Xb^2}{Na + Nb - 2}\right)\left(\dfrac{1}{Na} + \dfrac{1}{Nb}\right)}}$$

$$= \frac{39,19 - 31,56}{\sqrt{\left[\dfrac{1367,64 + 309,09}{36 + 37 - 2}\right]\left[\dfrac{1}{36} + \dfrac{1}{37}\right]}}$$

$$= \frac{7,63}{\sqrt{\left[\dfrac{1676,73}{71}\right]\left[0,027 + 0,027\right]}}$$

$$= \frac{7,63}{\sqrt{(23,6)(0,054)}}$$

$$= \frac{7,63}{\sqrt{1,27}}$$

$$= \frac{7,63}{1,13}$$

$$= 6,75$$

The result of statistical computation of t-test is 6,75 and t-table on 5 % of significance level is 2,000 (see Appendix 9). Having been compared the result of t-computation is higher than that of t-table, so its result is significant. It means that the null hypothesis is rejected, and the alternative hypothesis is accepted. So, there is an influence of the use of games on students' small reserve vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

Finally, if the result is significant, we can continue this analysis by employing the **Degree of Relative Effectiveness (DRE)** in order to know the influence on the use of games to the small reserve students' vocabulary achievement. The formula of DRE is as follows :

$$DRE = \frac{Ma - Mb}{Mb} \times 100\% = \ldots\ldots \%$$

$$DRE = \frac{39,19 - 31,56}{31,56} \times 100\% = 24,18\%$$

Based on the result of of analysis above, it can be concluded that the use of games has 24,18% degree of relative effectiveness on the students' small reserve vocabulary achievement. It means that the use of games has an influence to increase the students' small reserve vocabulary achievement.

4.4 Discussion and Interpretation

From those results, it can be concluded that the use of games has a significant influence on the students' vocabulary achievement.

Based on the result of statistical computation of t-test is 7,38 and t-table on 5 % of significance level is 2,000 (see Appendix 9). Having been compared the result of t-computation is higher than that of t-table, so the result is significant. It means that the null hypothesis is rejected, and the alternative hypothesis is accepted. So, there is an influence of the use of games on the students' vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

Based on the analysis of DRE above, it can be concluded that the use of games has 12,6% degree of relative effectiveness on the students' vocabulary achievement. It means that the use of games has an influence to increase the students' vocabulary achievement.

While the result of statistical computation of t-test on students' large reserve vocabulary is 5,92 and t-table on 5 % of significance level is 2,000 (see Appendix 9). Having been compared the result of t-computation is higher than that of t-table, so its result is significant. It means that the null hypothesis is rejected, and the alternative hypothesis is accepted. So, there is an influence of the use of games on the students' large reserve vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

Based on the analysis of DRE above, it can be concluded that the use of games has 7,18% of degree of relative effectiveness on the students' large reserve vocabulary achievement. It means that the use of gaems has an influence to increase the students' large reserve vocabulary achievement.

The result of statistical computation of t-test on students' small reserve vocabulary achievement is 6,75 and t-table on 5 % of significance level is 2,000 (see Appendix 9). Having been compared the result of t-computation is higher than that of t-table, so its result is significant. It means that the null hypothesis is rejected, and the alternative hypothesis is accepted. So, there is an influence of the use of games on the students' small reserve vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

Based on the analysis of DRE above, it can be concluded that the use of games has 24,18% degree of relative effectiveness on the students' small reserve vocabulary achievement. It means that the use of games has an influence to increase the students' small reserve vocabulary achievement.

A. The Major Result

- There is an influence of the use of games on the students' vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

B. The Minor Result

- There is an influence of the use of games on the large reserve students' vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.
- There is an influence of the use of games on the small reserve students' vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

Based on the results above, it can be concluded that games can be used in teaching learning process to arouse the students' interest, and to motivate the students in learning the material given by the teacher. In line with the results above, Adenan (1992:9) says that games are an obvious self motivating material that will arouse students' interest in learning language. It makes students relax. Moreover, language games can avoid boredom. Thus, the theory stated by Adenan supported the results of this research.

CHAPTER V
CONCLUSION AND SUGGESTIONS

5.1 Conclusion

Based on the result of the statistical computation of t-test formula, the result of t-computation is higher than that of t-table. This means that the result is significant. Thus, the null hypothesis is rejected, and the alternative hypothesis is accepted. So, there is an influence of the use of games on the students' vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

A. The Major Result

- There is an influence of the use of games on the students' vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

B. The Minor Result

- There is an influence of the use of games on the students' large reserve vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

- There is an influence of the use of games on the students' small reserve vocabulary achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

5.2 Suggestions

Based on the results of the study, the following suggestions can be given to the following persons :

a) The English Teacher

It is advisable for the English teacher to use games to increase students' vocabulary achievement, as games can stimulate students' interest in learning English and avoid boredom.

b) The Other Researchers

The results of this study can be used as an input and information for other researchers in conducting the research in the similar problems. There are many kinds of games. In this study, only 3 kinds of games were presented, they are the last letter games, find the words and sentence and matching. So that, it advisable for other researchers to apply the other games in conducting the research dealing with the similar problems.

BIBLIOGRAPHY

Adenan, F. 1994. *Puzzle and Games For Students of IKIP*. Yogyakarta: Kanisius.

Arikunto, S. 1989. *Dasar-dasar Evaluasi Pendidikan*. Jakarta: PT. Bina Aksara.

.... 1993. *Prosedur Penelitian Suatu Pendekatan Praktek*. Jakarta: Rineka Cipta.

Borg, Walter R. and Meredith D. Gall. 1983. *Educational Research*. New York: Longman.

Dobson, Julia M. 1985. *Technique for English Conversation Groups*, Washington, USA: English Language Program Division Bureau of Educational and Cultural Affairs.

Gerlach, Vernon S, Donald P and Robert M. 1980. *Teaching and Media a Systematic Approach*. New Jersey.

Haycraft, J. 1978. *An Introduction to English Language Teaching*. London: Longman.

Heaton, JB. 1975. *Writing English Test*. London: Longman Group.

Hill, LA. 1982. *Word Power 1500*. Tokyo: Oxford University Press.

Hornby, AS. 1989. *Advanced Learner's Dictionary*. London: Oxford University Press.

Hughes, A. 1984. *Testing for Language Teacher*. Sidney: Cambridge University Press.

Karim, M and Fatmi, A.H. 1985. *Language Teaching Media*. Jakarta: Universitas Terbuka: Karunia Jakarta.

Krohn, R. 1984, *English Sentence Structure*. New York: The University of Michigan Press;

Marcella, F. 1972. *Modern English*. New Jersey: Prentice Hall, Englewood Cliffs.

Millan, M. 1986. *Mac Millan English*. New York: Scribuer Educational Publisher.

Millan, M, James H. 1992 *Educational Research*. New York: Collins Publisher.

Nababan, S.U.S. 1993. *Metodologi Pengajaran Bahasa*. Jakarta: PT Gramedia Pustaka Utama;

Napa, A..P. 1991. *Vocabulary Development Skill*. Yogyakarta: Kanisius.

Nasution, S. 1987. *Metode Riset*. Bandung: Penerbit Jemmars.

Organ, T.W. 1985. *The Art of Critical Thinking*. Boston: Houghton Mifflin Company.

Pyle, Michael A and Mary A..M. 1987. *TOEFL Preparation Guide*. New York: John Willey Sains (SEA).

Rachmadi, S. 1990. *Games and Vocabulary*. Jogyakarta: Yayasan Penelitian Fakultas Sastra UGM.

Sudjana, N. 1990. *Penilaian Hasil Proses Belajar Mengajar*. Bandung: PT. Remaja Rosdakarya.

Sulthon, M. 1996. *Tekhnik Analis Data Statistik*. Dalam Diklat Peneliti Muda Sekaresidenan Besuki di SMPT Universitas Islam Jember. Unpublished paper.

Suryabrata, S. 1992. *Metodology Penelitian*. Jakarta: Rajawali Press.

Tarigan, H.G. 1990. *Pengajaran Kompetensi Bahasa*. Bandung: PT. Angkasa.

Thompson, A.J and A.V Martinet. 1986. *A Practical English Grammar*. London: Oxford University Press.

Webster. 1981. *Webster's Third International Dictionary* London: Merrian Webster Inc.

William, CB. 1970. *Style and Vocabulary*. New York: Hafner Publishing Company.

Winarno, S. 1990. *Pengantar Penelitian Ilmiah*. Bandung: Tarsito.

Wright, A. 1984. *Games for Language Learning*. London: Longman.

Yourkey, R. 1982. *Study Skills for Students Of English*. New York: Mac Graw Hill, Inc.

APPENDIX 1.

RESEARCH MATRIX

TITLE	PROBLEM	VARIABLES	INDICATORS	DATA RESOURCES	RESEARCH METHODS	HYPOTHESIS
The Influence of the Use of Games on the Students' Vocabulary Achievement at SMU Negeri I Arjasa, Jember in the 1999/2000 Academic Year	1. Major Problem Is there an influence of the use of games on the students' vocabulary achievement ? 2. Minor Problem a. Is there an influence of the use of games on the students' achievement on large reserve vocabulary ? b. Is there an influence of the use of games on the students' achievement on small reserve vocabulary ?	1. Independent Variable - Choosing vocabulary - The way to present games 2. Dependent Variable Students' vocabulary achievement	- Teaching vocabulary using games - The result of large reserve vocabulary achievement test - The result of small reserve vocabulary achievement test	1. Respondents The second year students of SMU Negeri I Arjasa, Jember in the 1999/2000 academic year. 2. Informant The English teacher 3. Documents	1. Area Determination Method Purposive method 2. Respondent Determination Method Cluster random sampling 3. Data collection methods - Test - Documentation 4. Data analysis method $$t = \dfrac{Ma - Mb}{\sqrt{\left(\dfrac{\sum Xa^2 + \sum Xb^2}{Na + Nb - 2}\right)\left(\dfrac{1}{na} + \dfrac{1}{nb}\right)}}$$ Notes t = the coefficient correlation MA = mean of Group A (experimental group) MB = mean of group B (control group) $\sum Xa^2$ = the total number of individual scores deviation of group A $\sum Xb^2$ = the total number of individual scores deviation of group Y N = the total number of subject Adapted from Arikunto (1991:261).	1. Major Hypothesis a. There is an influence of the use of games on the students' vocabulary achievement. 2. Minor Hypothesis a. There is an influence of the use of games on the students' achievement on large reserve vocabulary b. There is an influence of the use of games on the students' achievement on small reserve vocabulary

APPENDIX 2.

Research Instrument

School	: SMU Negeri I Arjasa, Jember
Class	: II
Lesson	: Vocabulary
Time	: 90 minutes

I. The Last Letter Games

Directions :

Read the sentences below. Then, find the words related to them. Each dash should be filled with one letter, so the first word has ten letters. The second word begins with the last letter of the first word, and the third word begins with the last letter of the second word and so on.

Example : t e l e p h o n e   It is a means of communication.

e a r   .... is used to hear.

1. g _ _ _ _ _ _ _ _ _

2. _ _ _

3. _ _ _ _ _ _ _

4. _ _ _ _

5. _ _ _ _ _ _ _ _

6. _ _ _ _ _ _ _

7. _ _ _ _ _ _

8. _ _ _ _ _ _ _

1. It is an electric machine. We use it to play music.

2. It comes from a hen.

3. It is made of glass. It is used to see something better.

4. It is a means of transportation. It usually through the sea.

5. George Washington was the first .... of the USA.

6. Getting through Tokyo by car is slow because there is so much..............

7. Do you have a cup of..............

8. I always cook with an .... cooker machine.

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9. _ _ _

9. If you want to play tennis, you should join the tennis ....

10. _ _ _ _ _

10. I like that watch, but I don't know how much it costs, because there is no .... on it.

11. _ _ _ _ _

11. It is a better for you to come ....to the bus station.

12. _ _ _ _ _ _

12. Don't be confused. Just check in the .... pages if you want to find your friends' phone numbers.

13. _ _ _ _

13. Be a ...... guy in your life !

14. _ _ _ _ _ _ _ _ _

14. Don't buy the .... apples, get the cheaper ones.

15. _ _ _ _ _

15. My .... brother is Tom. So, we respect him.

16. _ _ _

16. Industrial needs a .... material to produce something.

17. _ _ _ _

17. You have to raise your intonation. It is too ....

18. _ _ _ _ _

18. Don't be ....! You have to be mature.

19. _ _ _ _ _ _ _ _

19. Ann is the .... sisters in my family. Everybody loves her more.

20. _ _ _ _

20. She is a .... girl with a long hair. She has a posture like an artist.

II. Find the Words and Sentence

Directions :

Find the appropriate words to answer the statements below. As you find the words, put the letters of each word on the jumble number provided. Each number is one letter, so the first word has three letters. Then, put the letter of each number in the right place to make a sentence at the bottom of this page. The first one is answered for you.

1. 16 9 10
   s i t

2. 7 2 12 10

3. 1 8 3

4. 18 8 21 21 4

5. 19 20 8 16 6 21 20

6. 18 2 10 1 11

7. 21 6 3 16

8. 10 20 8 16 20

9. 7 2 16 11

10. 1 8 10 1 11 16

11. 13 17 1 11

12. 15 20 2 21

13. 10 11 20 21 20

14. 3 5 7

15. 13 14 16 10

16. 18 14 21 20

17. 11 20 21 20

18. 7 11 12 1 11

19. 10 7 9 1 20

20. 10 11 20 3

---

1. Please come in and .... down !

2. .... a moment ! I will call her.

3. .... you come on my birthday party, tonight ?

4. Will you .... me ? said the boys to his girl.

5. The test was able to .... the students' ability.

6. .... the words on the right column with the sentence on the left side.

7. He .... like a horse.

8. Don't like to .... your friends if you want to have a lot of them.

9. .... your hand first before you eat something.

10. He .... the ball on the right side to shoot it.

11. They admired him very ....

12. They live quite ....

13. Is .... my book ?

14. Let's go .... !

15. She behaved the .... generously.

16. She speaks .... fluently than the others.

17. There has been an accident ....

18. .... one do you like ? both of that clothes have a bright color.

19. I have seen that movie .... already, but I am going to see it again.

20. We have to pick her at the school first. .... we may go to the cinema.

The sentence: What does this sentence say? It has six words.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21?

      y   h   s

III. Matching

Directions:

Match the words on the right column of the following table with the sentences on the left.

No.	Sentences	Words
1.	This is our room. It means the room is	1. may
2.	She hurts .... with a knife.	2. what
3.	You and .... will go to the store now.	3. a
4.	Did you see Bob and ...... in the park yesterday? We were there.	4. such
5.	Just be .... Do not like to imitate the others' style.	5. can
6.	I found the book yesterday. ... has no name.	6. ours
7.	She will be .... I can see it by the looking of her eyes at you.	7. I
8.	Persebaya is the great team. We have to make a good preparations to face	8. a
9.	.... start the game.	9. herself
10.	.... up! We are already late for an hour.	10. how
11.	Be .... Please! Do not make a noise and just do the exam.	11. would
12.	Long .... the queen !	12. an
		13. the
		14. bless
		15. yourself
		16. a
		17. let's

13.	God .... you forever !	18. one
14.	.... a pretty girl !	19. the
15.	.... a long queue of you !	20. live
16.	.... dear that girl !	21. it
17.	It rained .... little during the night.	22. me
18.	It is .... best day in my life.	23. quite
19.	He gave us .... good breakfast.	24. a
20.	He is .... actor.	25. yours
21.	It was ...... earthquake.	26. an
22.	She will be ...... dancer.	27. them
23.	She has ...... lot of friend.	28. hurry
24.	...... night there was a terrible storm.	29. a
25.	.... you come on time, please ?	30. their
26.	.... I borrow your pencil, please ?	31. will
27.	.... you mind waiting a moment ?	32. of
28.	.... you seen John ? He did not go to the campus for two days.	33. itself
		34. have
29.	.... you have a family ?	35. does
30.	She .... not to do that job. It is too risk.	36. this
31.	You .... to pay the taxes as a good citizen.	37. in
32.	He .... nothing for his life.	38. with
33.	Have you ever met Mary Jones ? ..... course ! She is my sister.	39. at
		40. do
34.	I came here in 1970, and it is now 1982 so, I have been here ...... 12 years.	41. for
		42. from
35.	Peter was absent .... school yesterday.	43. have
36.	On warm days we have lunch .... the open air.	44. in
37.	John is angry ...... Tom because he forgot to invite him	45. from

	to his party ?
38.	We arrived .... the front door of Helen's house at 8 : 00 exactly.
39.	John was here .... Monday through Wednesday, but he is gone now.
40.	There is a football match ..... the school.
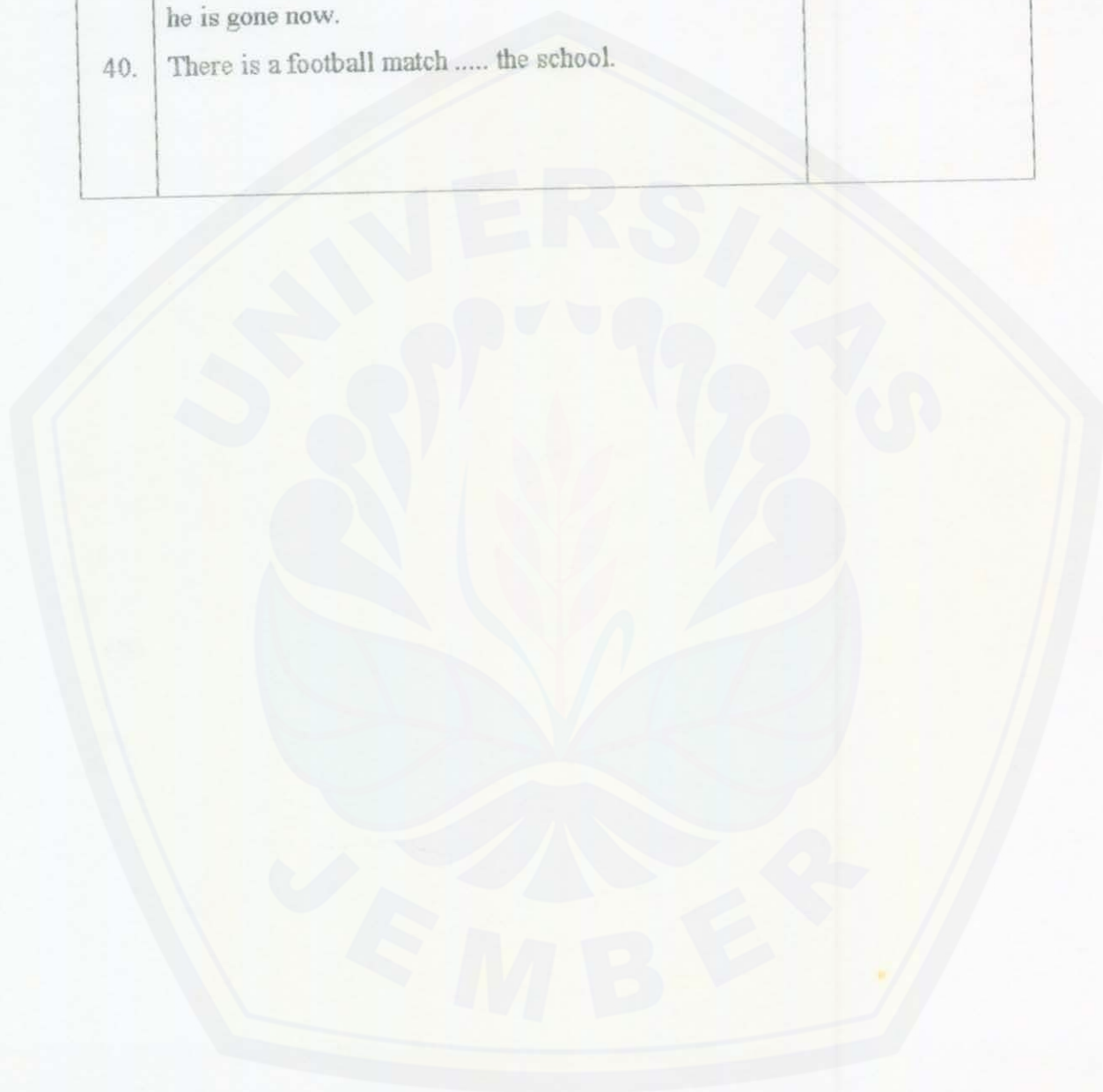
THE ANSWER KEY

I. The Last letter Games

1. gramophone
2. egg
3. glasses
4. ship
5. president
6. traffic
7. coffee
8. electric
9. cup
10. price
11. early
12. yellow
13. wise
14. expensive
15. elder
16. raw
17. weak
18. kiddy
19. youngest
20. tall

II. Find the Words and Sentence

1. sit
2. wait
3. can

4. marry
5. measure
6. match
7. runs
8. tease
9. wash
10. catches
11. much
12. near
13. there
14. now
15. most
16. more
17. here
18. where
19. twice
20. then

The sentence:

1	2	3	4	5	6	7	8	9	10	11	12	13
c	a	n	y	o	u	w	a	i	t	h	i	m

14	15	16	17	18	19	20	21
o	n	s	u	m	m	e	r?

III. Matching

1. ours
2. herself
3. I

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4. me
5. yourself
6. It
7. yours
8. them
9. let's
10. hurry
11. quiet
12. live
13. bless
14. what
15. such
16. how
17. a
18. the
19. a
20. an
21. an
22. a
23. a
24. one
25. can
26. may
27. would
28. have
29. do
30. will
31. have

32. does
33. of
34. for
35. from
36. in
37. with
38. in
39. from
40. at
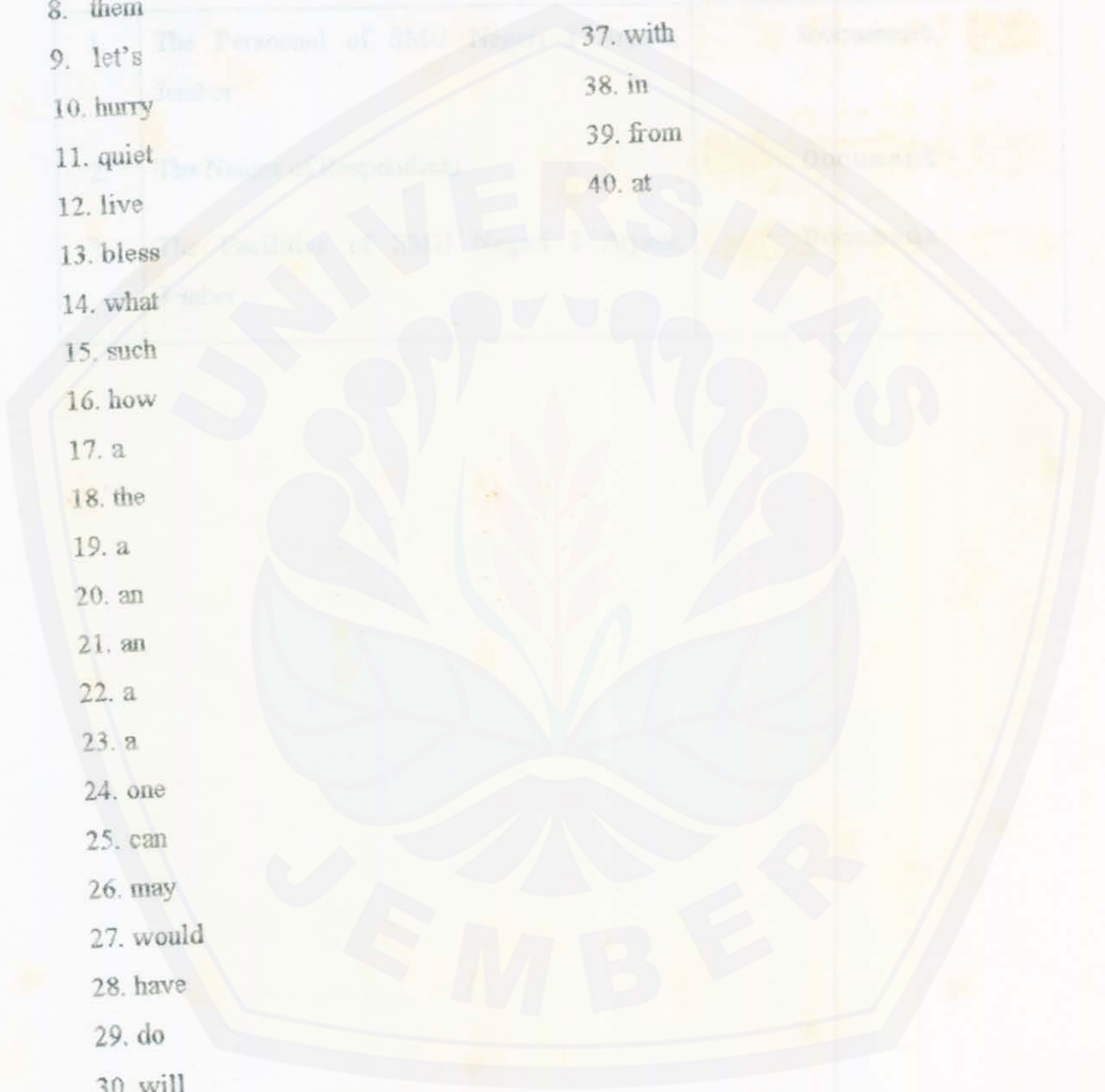
APPENDIX 4.

The Facilities of SMU Negeri I Arjasa, Jember.

NO.	BUILDING	TOTAL
1.	Classroom	16
2.	Exact Science Laboratory	1
3.	Cafe	2
4.	Guidance and Counseling Room	1
5.	Principal's Room	1
6.	Administration Staff Room	1
7.	Teachers' Room	1
8.	Mosque	1
9.	Parking Area	2
10.	Teacher's Toilet	2
11.	Student's Toilet	4

APPENDIX 5.

The Organization Structure of SMU Negeri I Arjasa, Jember in the 1999/2000 Academic Year

The Principal
Drs. HM. Sungkowo

BPPP
Erni Sulistiana

Administration Staffs

Vice Principal

Students Affairs	Curriculum Affairs	Public Relation Affairs	Facilities Affairs
Kamaludin, Spd	Drs. Ali Achmad	M. Hafidz, BA	Drs. Didik Prihadi

Coordinator of Lessons	Head of Classes	Teachers	Guidance & Consultant
Rr. Ismi S, Spd			

Education Staffs

Students
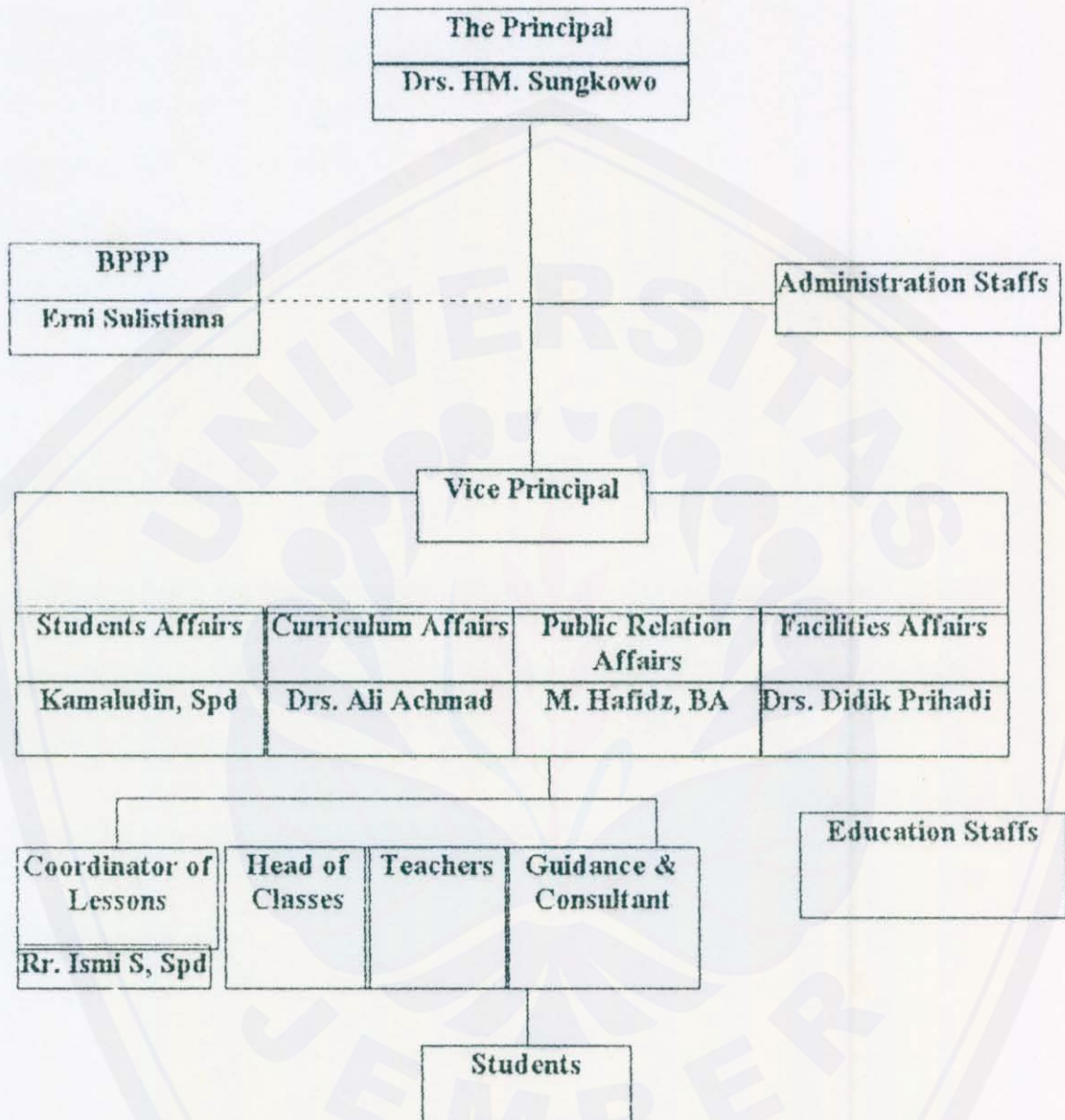
_____ Command line

----------- Coordination line

(Source : Administration staffs of SMU
          Negeri I Arjasa, Jember).

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APPENDIX 6.

THE LIST OF THE RESPONDENTS' NAMES

Table 2 (Class II-1 as the control group)

NO.	NAMES	NIS
1.	Popy Iryneri	1482
2.	Agustina Paramitha D	1534
3.	Bawon Kiptiyah	1542
4.	Elok Mugi Rahayu	1549
5.	Galuh Phitaloka	1554
6.	Riezal Heru	1565
7.	Siti Musarofah	1569
8.	Dani Atika	1578
9.	Feri Adinata	1580
10.	Fajariyah Surya D	1587
11.	Imam Surya D	1595
12.	Iwan Kurniawan	1596
13.	Wawan Widianto	1608
14.	Dhenny Mardanu	1619
15.	Dyah Wulandari	1620
16.	Fany Yudiawati	1628
17.	Joni Arif R.H	1633
18.	Afidatun	1637
19.	Rina Ika W	1642
20.	Yeni Hadayani	1650
21.	Aswar Anas	1657
22.	Eka Indriati S	1665
23.	Guntoro Indriatno	1668
24.	Ria Adefina Suryani	1680
25.	Rozi Hendra Setiawan	1682
26.	Agung Priambodo	1694
27.	Farida	1704
28.	Ken Melati M	1713

29.	Nurus Sofa A.H	1720
30.	Risky Wahyudi	1725
31.	Syaifullah	1731
32.	Danti Surya W	1742
33.	Eko Kurniawan	1747
34.	Fitriyatul Jamilah	1750
35.	Khusnul Khayatin	1757
36.	Rama Yudha P	1765
37.	Santi Kristiyawanti	1769
38.	Hendro kartiko	1770
39.	Abdul Karim	1771

Jember,..........................
WALI KELAS

WIDIASTUTIK, SPd
NIP. 131 812 497

APPENDIX 7.

THE LIST OF THE RESPONDENTS' NAMES

Table 3 (Class II-3 as the experimental group)

No.	NAMES	NIS
1.	Bagus Dwi Kurniawan	1539
2.	Deky Firmansyah	1546
3.	Dewi Insani Mufliha	1547
4.	Ika Junior A.W	1566
5.	Rini Pragandari	1567
6.	Anak Agung Tri H.D	1575
7.	Ardyaning Timur A	1576
8.	Diyah Kusumawati	1582
9.	Hendra Setyawan	1592
10.	Mudzhiroh Ristianti	1598
11.	Nur Koriah	1600
12.	Rio Wawit Widyanto	1603
13.	Silvia Aprino Vitasari	1606
14.	Arina Hidayati	1617
15.	Erwin Andriyati	1625
16.	Harris Humaini	1630
17.	Nova Arif Satriya	1639
18.	Raditya Eko Setiawan	1641
19.	Umi Fadilah	1648
20.	Arief Wahono W	1654
21.	Dwi Asmaningsih	1663
22.	Ervan Adi Kurnia	1666
23.	Novian Adi Kurniawan	1675
24.	Putik Fajar Melati	1676
25.	Tri Puji Hartini	1686
26.	Anita Puspitaningtyas	1697
27.	Antonius Darmawan	1698
28.	Hariyanto	1708
29.	Hyatmi Dyah lestari	1710

30.	Ridha Wayanti	1723
31.	Susy Ristiana	1730
32.	Agung Setyawan	1735
33.	Budi Handoyo	1740
34.	Danny Wibowo	1741
35.	Epic Tri Laili Z	1748
36.	Ika Fitriah	1755
37.	Vendy Yulianda	1771
38.	Putri Fatma	1784
39.	Endah Sari	1785

Jember,....................
WALI KELAS,

RR. ISMI SULISTYOWATI, SPd
NIP. 131 812 383

APPENDIX 8.

Table 4. The List of the Teachers' Names of SMU Negeri I Arjasa, Jember in the 1999/2000 academic year.

NO.	NAMES	OCCUPATION	SUBJECT
1.	Drs. H.M Sungkowo	Principal	Career Counseling
2.	Drs. Ali Achmad	Curriculum Affairs	Career Counseling
3.	Drs. Mualam	Teacher	Geography
4.	Drs. Herawaty T	Teacher	Career Counseling
5.	Dra.Titik Patmiyarsih	Teacher	Sports
6.	Drs. Slamet AS	Teacher	Chemistry
7.	Dra. Endah Pantjaarsih	Teacher	Mathematics
8.	Drs. Didik Prihadi	Facilities Affairs	Physics
9.	Dra. Hj. Siti Ngaisah	Teacher	Indonesian
10.	Dra. Muslimah	Teacher	Economics
11.	Dra. Tutik ismiatih	Teacher	Mathematics
12.	Dra. Hj. Dina HW, MM	Teacher	English
13.	HeningSuciptowati,Spd	Teacher	Indonesian
14.	Lisno, Spd	Teacher	Economics
15.	Kamaludin, Spd	Students' Affairs	Economics
16.	Rr. Ismi S, Spd	Teacher	Mathematics
17.	Titik Winarsih, Spd	Teacher	PPKN
18.	Widiastutik, Spd	Teacher	Mathematics
19.	M. Hafidz, BA	Public Relation Affairs	English
20.	Nurul Chomariah , Spd	Teacher	Economics
21.	Erni Sulistiana, Spd	Teacher	Chemistry
22.	Anastasia, SP. Spd	Teacher	English
23.	Widi Wasito, Spd	Teacher	Sports
24.	Salamah	Teacher	Physics

25.	Drs. Mujayadi	Teacher	PPKN
26.	Dra. Vinike Kusuma E	Teacher	Biology
27.	Deni Fitry	Teacher	English
28.	Ida Rosanti, Spd	Teacher	Biology
29.	Sri Andayani, BA	Teacher	Career Counseling
30.	Drs. Asik	Teacher	Religion
31.	Kuntoyono, Spd	Teacher	Biology
32.	Zaenal A, Spd	Teacher	Mathematics
33.	Yustisia Walida, Spd	Teacher	Biology
34.	Rohma W, Spd	Teacher	History
35.	Ir. Eko Wahyudi	Teacher	Chemistry
36.	Zaenal MSP, Spd	Teacher	Religion
37.	Sucik Ambarwati, Spd	Teacher	History
38.	Ali Murtono, Spd	Teacher	Physics
39.	Drs. Orba Nurhakiki	Teacher	Geography
40.	Drs. Imam Sucahyo	Teacher	Drawing Art
41.	Drs. M Arief	Teacher	English
42.	Dwi Sugeng, Spd	Teacher	Physics
43.	Kristianti, Spd	Teacher	Indonesian

TABEL NILAI - NILAI t DENGAN
TARAF SIGNIFIKANSI 5% DAN 1%.

db.	Taraf Signifikansi	
	5% >	1%
1	12,706	63,657
2	4,304	9,925
3	3,182	5,841
4	2,776	4,604
5	2,571	4,032
6	2,447	3,707
7	2,365	3,499
8	2,306	3,355
9	2,262	3,250
10	2,228	3,169
11	2,201	3,106
12	2,179	3,055
13	2,160	3,012
14	2,145	2,977
15	2,131	2,947
16	2,120	2,921
17	2,110	2,898
18	2,101	2,878
19	2,093	2,861
20	2,086	2,845
21	2,080	2,831
22	2,074	2,819
23	2,069	2,807
24	2,064	2,797
25	2,060	2,787
26	2,056	2,779
27	2,052	2,771
28	2,048	2,763
29	2,045	2,756
30	2,042	2,750
40	2,021	2,704
60	2,000	2,660
120	1,980	2,617
	1,960	2,576.

3). Prof. Drs. Sutrisno Hadi MA. ; Statistik, Jilid
Cetakan kedua, Yayasan Penerbitan Fakultas Psychologi UGM,
Yogyakarta, 1975, p. 272.

PENDIX 10.

TABEL F

Nilai nilai F dengan taraf Signifikans 5% (deretan bawah) dan
1% (deretan atas)

TABEL F

Nilai F dengan taraf Signifikans 5% (deretan bawah) dan
1% (deretan atas)

APPENDIX 11

LESSON PLAN

Lesson/Topic   : English/Vocabulary
Theme/Sub-themes   : Games/The last letter games, find the
                         words and sentence, matching
Level   : SMU
Class   : II
Time   : 3 meetings @ 45 minutes

I. General Instructional Objective :

With the ability more than 500 new words in the level of 2000 words and appropriate to the theme games, students may have a language skills.

II. Specific Instructional Objectives :

A. The First Meeting

Students will be able to :

1. identify the problems on the last letter games.

2. find the appropriate words to answer the statements.

3. find the second words with the last letter of the first words and so on.

B. The Second Meeting

Students will be able to :

1. identify the problems on find the words and sentence.

2. find the appropriate words to answer the statements.

3. fut the answer on the jumble numbers provided.

4. answer the question.

C. The Third Meeting

Students will be able to :

1. identify the problems on the Matching.

2. find the appropriate words to answer the statements.

3. match the words on the left side with the appropriate words on the right side.

66

III. The Material

A. The First Meeting

Sub themes   : The Last Letter Games

Source   : Ferry Adenan. 1994. *Puzzle and Games for Students of IKIP*.

Yogyakarta : Kanisisus.

Unit   : 2 task 1

B. The Second Meeting

Sub themes   : Find the Words and Sentence

Source   : Ferry Adenan. 1994. *Puzzle and Games for Students of IKIP*.

Yogyakarta : Kanisisus.

Unit   : 2 task 2

B. The Third Meeting

Sub themes   : Matching

Source   : Pieter A. Napa. 1991. *Vocabulary Development Skill*.

Yogyakarta : Kanisisus.

Unit   : 2 task 2

IV. Teaching Learning Process

Meetings	Times	The Materials	Students' activities	Group	Individual
1.	45'	The Last Letter Games	• Identify the problems on the last letter games.	√	
			• Find the appropriate words to answer the statements.		√
			• Find the second words with the last letter of the first words and so on		√
2.	45'	Find the Words and Sentence	• Identify the problems on find the words and	√	

			sentence.		
			• Find the appropriate words to answer the statements.		√
			• Put the answer on the jumble numbers provided.		√
			• Answer the question.		√
3.	45'	Matching	• Identify the problems on the Matching.	√	
			• Find the appropriate words to answer the statements.		√
			• Match the words on the left side with the appropriate words on the right side.		√

Jember, 20 January 2000

The Researcher,

Agus Yasmanto
9402107068

EMEN PENDIDIKAN DAN KEBUDAYAAN RI
      UNIVERSITAS JEMBER
LTAS KEGURUAN DAN ILMU PENDIDIKAN

an : 018 /PT.32.H5.FKIP/I.7'....22.   Jember, 15 Januari 1%2000

an : Proposal
l : Ijin Penelitian

a : Yth.Sdr. ..Kepsek...........

          SMUN I Arjasa.....

   di - Sekolah
        ....

Dengan ini Dekan Fakultas Keguruan dan Ilmu Pendidikan Universitas
Jember menerangkan bahwa Mahasiswa yang tersebut dibawah ini :

N a m a   : ..Agus Yusmanto..

N i m   : ..9402107068..

Program / Jurusan   : ..Bahasa Inggris / Bahasa dan Seni ....

Berkenaan dengan penyelesaian studynya , maka mahasiswa tersebut ber —
maksud melaksanakan penelitian dengan judul :

..THE INFLUENCE OF THE USE OF GAMES ON THE STUDENTS'................

VOCABULARY ACHIEVEMENT AT SMU NEGERI I ARJASA

JEMBER IN THE 1999/2000 ACADEMIC YEAR.

pada lembaga yang saudara pimpin.
Sehubungan dengan hal tersebut diatas kami mohon dengan hormat saudara
berkenan dan sekaligus kami mohon bantuan informasinya.
Atas perkenan dan perhatiannya kami mengucapkan terima kasih.

                                              a.n. D e k a n
                                              Pembantu Dekan I

                                              Drs. DJOKO SUHUD

DEPARTEMEN PENDIDIKAN DAN KEBUDAYAAN
SEKOLAH MENENGAH UMUM TINGKAT ATAS
SMU NEGERI 1 ARJASA
Alamat : Jalan Sultan Agung 24A Telpon : 540133 Arjasa - Jember

SURAT – KETERANGAN
Nomor : 89/IO4.32/SMU.06/PP/2000

Yang bertanda tangan dibawah ini, Kepala SMU Negeri 1 Arjasa Jember, menerangkan bahwa :

N a m a	:	AGUS YUSMANTO
N i m	:	9402107068
P r o g r a m	:	Bahasa Inggris
J u r u s a n	:	Pendidikan Bahasa Inggris
F a k u l t a s	:	Keguruan dan Ilmu Pendidikan

Mahasiswa tersebut diatas telah mengadakan penelitian di SMU Negeri 1 Arjasa sejak bulan November 1999 s/d Januari 2000 dengan Judul :
Penelitian THE INFLUENCE OF THE USE OF GAMES ON THE STUDENTS' VOCA-BULARY ACHIEVEMENT AT SMU NEGERI I ARJASA – JEMBER, IN THE 1999/2000 ACADEMIC YEAR.

Demikian keterangan ini dibuat untuk dapat dipergunakan sebagaimana mestinya.

Arjasa, 02 Pebruari 2000
Kepala SMU N 1 Arjasa
WK. Kurikulum ,

ALI ACHMAD S.
NIP. 131 635 021

LEMBAR KONSULTASI PENYUSUNAN SKRIPSI

N a m a : AGUS YUSMANTO

Nim / Jurusan / Angkatan : 9402107068/Bahasa Inggris/1994

Judul Skripsi : THE INFLUENCE OF THE USE OF GAMES TO
STUDENTS' VOCABULARY ACHIEVEMENT AT SMU NEGERI I ARJASA, JEMBER
IN THE 1999/2000 ACADEMIC YEAR

Pembimbing I :

Pembimbing II : Drs. Bambang B, Med

KEGIATAN KONSULTASI :

No.	Hari tanggal	Materi Konsultasi	Tt. Pembimbing
1.	Kamis/ 29 Juli'99	Matrix	
2.	Jum'at/13-08-1999	Bab I	
3.	Selasa/19-09-1999	Bab II	
4.	Rabu/1-12-1999	Bab III	
5.	Kamis/20-01-2000	Instrument	
6.	Jum'at/04-02-2000	Bab IV	
7.	Jum'at/04-02-2000	Bab V	
8.	Senin/07-02-2000	Lampiran-lampiran	
9.	Rabu/09-02-2000	Revisi	
10.			
11.			
12.			
13.			
14.			
15.			

CATATAN : 1. Lembar ini harus dibawa dan diisi setiap melakukan konsultasi
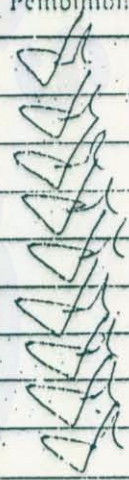
2. Lembar ini harus dibawa sewaktu ujian PRA SKRIPSI dan UJIAN SKRIPSI.

LEMBAR KONSULTASI PENYUSUNAN SKRIPSI

N a m a : AGUS YUSMANTO

Nim / Jurusan / Angkatan : 9402107068/Bahasa Inggris/1994

Judul Skripsi : THE INFLUENCE OF THE USE OF GAMES TO STUDENTS' VOCABULARY ACHIEVEMENT AT SMU NEGERI I ARJASA, JEMBER IN THE 1999/2000 ACADEMIC YEAR.

Pembimbing I : Dra. Wiwiek Eko B, Mpd

Pembimbing II :

KEGIATAN KONSULTASI :

No.	Hari tanggal	Materi Konsultasi	Tt. Pembimbing
1.	Rabu/ 28 Juli 1999	Matrix	
2.	Selasa /10-08-1999	Bab I	
3.	Selasa /19-10-1999	Bab II	
4.	Sabtu/20-11-1999	Bab III	
5.	Rabu/19-01-2000	Instrument	
6.	Selasa /01-02-2000	Bab IV	
7.	Selasa /01-02-2000	Bab V	
8.	Kamis /03-02-2000	Lampiran-lampiran	
9.	Sabtu /05-02-2000	Revisi	
10.			
11.			
12.			
13.			
14.			
15.			

CATATAN : 1. Lembar ini harus dibawa dan diisi setiap melakukan konsultasi

2. Lembar ini harus dibawa sewaktu ujian PRA SKRIPSI dan UJIAN SKRIPSI.