

**THE EFFECT OF USING NUMBERED HEADS TOGETHER
TECHNIQUE ON STUDENTS' VOCABULARY ACHIEVEMENT
AT MTS MA'ARIF BALONG IN ACADEMIC YEAR 2014/2015**

THESIS

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MOTTO

"Better to feel how hard education today rather than fell the
bitterness of stupidity later"

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DEDICATION

This thesis is dedicated to:

- My beloved father and mother, Mr. Burhanuddin and Mrs. Siti Asiyah who give me a lot of support and motivation, you are the number one for me.
- My lovely brother Fuad Eko Darminto thank you for your endless love, support and encouragement.
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ABSTRACT

Rohmah, Fitriyani Duwi Fathur. 2015. The Effect of Using Numbered Heads Together Technique on Students' Vocabulary Achievement at MTs Ma'arif Balong in Academic Year 2014/2015. Thesis, English Education Department, Tarbiyah Faculty, State Islamic College of Ponorogo, Advisor Dra. Aries Fitriani, M.Pd.

Key words: *numbered heads together, students' vocabulary achievement*

Vocabulary is the knowledge of meaning words. Vocabulary is a core component of language proficiency. It provides much of the basic how well learners listen, speak, read, and write. English teaching activity should be various ways to give the students' spirit in their activity in learning vocabulary. Cooperative learning refers to a variety of teaching which students work with small groups to help each other in learning the subject matter. Numbered heads together is one of the techniques in cooperative learning that emphasizes student activity in searching, processing and reporting information from a variety of sources that ultimately are presented in front of the class.

The statement of the problems: Is there any significant difference of using numbered heads together technique on the seventh grade students' vocabulary achievement at MTs Ma'arif Balong in academic year 2014/2015? The objective of the research is to find the significant difference of using numbered heads together technique on the seventh grade students' vocabulary achievement.

The design of this research was quasi-experimental research which the dependent variable was students' vocabulary achievement and independent variable was teaching using numbered heads together technique. The population was 85 that was taken was seventh grade students of MTs Ma'arif Balong in academic year 2014/2015, while the sample was 28 students VIIC were the experiment class and 28 students VIIB were the control class. The researcher used random sampling as sampling technique. Then the technique of data collection was test, documentation, and interview. The researcher used the "t" test formula as procedure of data analysis.

The results of this research were as follows: the data was analyzing using t-test for the significance 5%. The result of the research shows that numbered heads together technique was effective technique in teaching vocabulary. The result of t-test calculation shows that $t\text{-value} > t\text{-table}$ ($t\text{-value} = 3,85$; $t\text{-table} = 2,01$). The research rejected Null Hypothesis (H_0) and accepted Alternative Hypothesis (H_a). From the result data analysis above, the researcher concluded that there is a significant difference between vocabulary achievements of students who are using numbered heads together technique than who are not using numbered heads together technique (memorizing technique).

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Praise to Allah SWT, who has given grace and guidance, so the writer can finish this thesis, although the author realizes, this paper is still far from perfection. Place and salutation be upon the great messenger Muhammad SAW, his family and friends until end of the time.

This thesis aims to fulfill one of the requirements for degree of Sarjana in English Education. The title of the thesis is: *The Effect of Using Numbered Heads Together Technique on Students' Vocabulary Achievement at MTs Ma'arif Balong in Academic Year 2014/2015.*

The success who obtained from the results of the overall efforts, also thanks to support from the other parties. For that, on this occasion with all humanity, the researcher wants thank to:

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Writer cannot reply to anything, the writer hopes that their services be accepted by Allah SWT. Lastly, suggestion and criticism very author expect perfection for the sake of this thesis and hopefully useful to the researcher of this thesis in particular and generally to the reader.

Ponorogo, June 22th, 2015

Researcher

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CHAPTER I

INTRODUCTION

A. Background of the Study

English as an international language has spread out around the world. English as compulsory subject which has been taught from Elementary up to Senior High School plays an important role to improve our knowledge. Through English, we can develop our knowledge, technology, culture and can build relationship with other nations easier.

Teaching English consists of the four language skills; they are listening, speaking, reading, and writing. While the language components that should also be taught are pronunciation, vocabulary, and grammar of English. Vocabulary is the knowledge of meaning of words.¹ Vocabulary is the basic thing in learning language. Vocabulary is one of the most obvious components of language and of the first things applied linguists turned their attention². Although vocabulary is not considered as a skill, it really plays important role in learning or using English. Vocabulary helps a learner understand others and express the ideas clearly and effectively because of that vocabulary becomes one of the central attentions in language teaching.

¹ Elfrieda H. Hiebert And Michael L. Kamil, Teaching And Learning Vocabulary: Bringing Research to practice, (London, Lawrence Erlbaum Associates, 2005), 3

²Jack C. Richard, Curriculum Development in Language Teaching (United Kingdom: Cambridge University Press, 2001), 4.

Vocabulary is a core component of language proficiency and provides much of the basic how well learners speak, listen, read, and write.³ Learners need so many words to share their idea; they also need to practice the words as usual as possible, because performance of language depends on the knowledge of vocabulary. Learners can speak, write, read, and even listen in English, of course by having vocabulary. Words, like money, and have little value in and of themselves. They are important because they stand for real things, objects, actions, sounds, thought, and feeling. They are also important because they are a medium for the exchange of ideas.⁴ It means, mastering vocabulary will increase student's ability in speaking, listening, reading, and writing.

Based on the description above, it can be inferred that learning vocabulary is important. In addition, vocabulary mastery can also lead the learners easily understanding and for the result they will have a good vocabulary achievement. According Schmitt, vocabulary is important to maintain communication in that field. If students have specific languages purposes, they may need vocabulary with certain register marking in order to achieve it.⁵

Teacher has an important role in teaching vocabulary. English teacher has to creative in make teaching and learning process creatively. According to

³ Jack C. Richards, and Willy a. Renandya, *Methodology in Language Teaching : An Anthology Current Practice*, (Cambridge, Cambridge University Press, 2002), 255

⁴ Paul Witty, *How to become a better reader*, 105.

⁵ Nobert Schmitt, *Vocabulary in Language Teaching*, (USA: Cambridge University Press, 2000), 82.

Schmitt, when explicitly teaching vocabulary, it is beneficial to avoid cross-association, to teach underlying meanings and complete word families when possible, and to be aware of the intralexical and cross-linguistic factors that may make certain word difficult for our learners.⁶

In teaching vocabulary, the teacher must focus on the most useful vocabulary first. The teacher teaches the new words which closed to students daily life, and which are useful for students to be learned. Beside that, the teacher must focus on the vocabulary in the most appropriate way. It means that, teacher must know the appropriate technique in teaching vocabulary, and it must suitable with students capability

To improve students' vocabulary mastery the teacher needs an appropriate technique to teach them. The teachers should choose interesting appropriate technique. Teaching technique is a particular trick or connivance used to accomplish an objective. Technique depends on the teacher, his individual capability, and on the composition on the class. Particular problems can be tracked successfully by the use of different techniques. The teacher should choose interesting technique to teach vocabulary in order to make the students enjoy the lesson and get the purposes of the lesson. There are many techniques in teaching vocabulary such as: mind mapping, brainstorming, vocabulary charts, and also numbered heads together etc.

Numbered-Heads Together (NHT) is one of the techniques in cooperative learning developed by Kagan. NHT is helpful for the students

⁶Ibid, 82.

because it drills students to work cooperatively in making reviews of the material and check their understanding about the content of the lesson. In this technique, the students have their own group, the members of the group discussing together to answer the questions, and every members of the group must know and understand the answer of the questions. The teacher calls the number of the students randomly because of that all of the members of the group must prepare. Because no one knows which number will be called, all team members must be prepared. In this technique, students work on a task in groups and often are rewarded either partially or completely for the success of the groups as a whole.⁷ Numbered heads together makes the students are motivated to learn more active, sociable with another friends, exchange ideas so that it will develop students' knowledge and students are more passionate in learning.⁸

Numbered heads together technique is used to review materials covered in a lesson and to check the students' understanding of a lesson's content such as vocabulary. Thus, this technique gives an opportunity to the students to review their understanding of materials that the teacher has taught.⁹ In this technique students are required to participate in reviewing materials taught and recheck their understanding of the materials.¹⁰ Therefore,

⁷ Kelvin Seifert and Rosemarry Sutton, *Educational Psychology* (Switzerland:2009), 202.

⁸ [Ejournal.umm.ac.id/index.php/penmath/article/viewfile/608/630_umm_scientific_journal.pdf](http://journal.umm.ac.id/index.php/penmath/article/viewfile/608/630_umm_scientific_journal.pdf).access on 22/02/2015, 20;40.

⁹ Arends, Richard I, *Classroom Instruction and Management* (USA: McGraw-Hill Company, 1997), 122-123.

¹⁰ Anita Lie, *Cooperative Learning* (Jakarta: Gramedia, 2008), 59.

with this technique the student can easily solve problems and encourage students to improve their vocabulary.

Based on the explanation above, the researcher tries to conduct research was entitled “ The Effect of Using Numbered Heads Together Technique on Students’ Vocabulary Achievement at MTs Ma’arif Balong in Academic Year 2014/2015”

B. Identification of the Problem

From the background of the study above, some problem can identified as follows:

1. Some of the students have difficulty to understand and memorize new vocabulary.
2. Some of the students do not mastery vocabulary and they have less vocabulary achievement.
3. Teacher’s technique in teaching vocabulary also influence students’ vocabulary achievement

C. Limitation of the Problem

To avoid a deviation of the disscussion, this study focused on some concerns identified as follow:

1. The subject of the study is at seventh grade students of MTs Ma’arif Balong in academic year 2014/2015

2. The object of this study is the effect of using Numbered Heads Together technique on the students' vocabulary achievement

D. Statement of the Problem

Regarding the limitation of the study, this study promotes the problem formulated as follow:

Is there any significant difference of using Numbered Heads Together technique on the seventh grade students' vocabulary achievement at MTs Ma'arif Balong in academic year 2014/2015 ?

E. Objective of the Study

To find the significant difference of using Numbered Heads Together technique on the seventh grade students' vocabulary achievement at MTs Ma'arif Balong in academic year 2014/2015

F. Significance of the Study

The result of this reserach is expected to be beneficial for

1. Theoritical Significance

This reserachis expected to give benefits in educational practice. It can contribute as the reference of teaching vocabulary technique.

2. Practical Significance

a. Teachers

It is expected to give useful contribution for teacher to help them in teaching their students, especially in improving students' vocabulary. Especially for English teacher of MTs. Ma'arif Balong to improve students' vocabulary achievement by using Numbered Heads Together technique. This research will be one of the simplest technique to create attractive and active classroom environment in English language learning process.

b. Students

It is expected to be useful for the students to enlarge their vocabulary. Besides that the students can appreciate the others' effort. Furthermore, by using Numbered Heads Together the students get interesting experience while practicing English in spoken and written.

c. Readers

It is expected to be useful for readers especially for the students of english department of STAIN Ponorogo as a reference to use related technique for improving vocabulary.

G. Organization of the Thesis

In order to ease the reader understanding this study, the research report is arranged systematically in which each has interconnection to others. It is highlighted in detail as follows:

Chapter I is the introduction that explains about the whole content of thesis. They are background of the study, identification of the problem, limitation of the problem, statement of the problem, objective of the study, significance of the study, organization of the thesis.

Chapter II presents review of related literature consist of theoretical background, theoretical framework, previous research finding, hypothesis. The theoretical analysis covers some discussions such as vocabulary: definition of vocabulary, kind of vocabulary, component of vocabulary, aspect of vocabulary, type of vocabulary knowledge, importance of vocabulary, factor influence vocabulary, vocabulary achievement; numbered heads together technique: definition of numbered heads together, definition of technique, the procedure of numbered heads together technique, the advantages of numbered heads together technique, the weaknesses of numbered heads together technique.

Chapter III deals with reseacrh methodology; this chapter explains about research design; population and sample; instrument of data collection; technique of data collection; technique of data analysis.

Chapter IV gives interpretation of research result; this chapter contains of research location; data description; data analysis; discussion and interpretation.

Chapter V presents closing; this chapter consist of conclusion and recommendations.

CHAPTER II

REVIEW OF RELATED LITERATURE

The review of related literature includes of theoretical background, previous research finding, theoretical framework and hypothesis.

A. Theoretical Background

1. Vocabulary

a. Definition of Vocabulary

Vocabulary is one of the language aspects which should be learnt. Rivers in Nunan's book stated that the acquisition of an adequate vocabulary is essential for successful second language use because, without an extensive vocabulary, we will be unable to use the structures a function we may have learned for comprehensible communication.¹¹

In the Oxford Advanced Learner's Dictionary of Current English, vocabulary is total number of words which (with rules for combining them) make up language. In Oxford learner's pocket dictionary, voabulary is list of words with their meanings.¹²

Vocabulary is a group of words of a language that convey meaning

¹¹ David Nunan, *Language Teaching Methodology; A Text Book for Teacher* (Sydney: Prentice Hall, 1991), 117.

¹²Hornby, *Oxford Learners's Pocket Dictionary Third Edition* (Oxford University Press: New York, 2009), 482.

when the language is used. Language consist of words. Vocabulary is the collection of words that an individual knows.¹³

According to Penny Ur, vocabulary can be defined, roughly, as the words we teach in the foreign language.¹⁴

Based on Hatch and Brown vocabulary refers to a list or a set of words that individual speaker of a language might use¹⁵. Cameron (1993:34) claims that words seem to be a basic level category in language learning because of that, the students who want to mastery in language must have a lot of vocabularies to make it easier and more effective.¹⁶

Based on the statements, it can be stated that vocabulary is a list of words that is used by, understood by, or at the command of a particular person or group. The list of words can be used to express ideas and feelings in communication.

In conclusion, vocabulary is group of words in language. Vocabulary is knowledge of word meaning. People use vocabulary which are arranged into sentence to express their opinion, their though, and also ideas in their communication.

¹³Caroline T. Linse, *Practical English langugae Teaching: Young Learners* (North America: the Mcgraw-Hill Companies), 121.

¹⁴Penny ur, *A Course in Language Teaching* (Cambridge: cambridge University Press, 1996), 60.

¹⁵Hatch and Brown, *Vocabulary, Semantics, And Language Education* (New York: Cambridge University, 1995), 1

¹⁶Cameron L, *Organizing the World: Children's Concept and Categories, and Implication for the Teaching English* (London: Oxford University Press, 1994), 34.

b. Kinds of Vocabulary

Words are usually grouped into eight classes “part of speech”: verb, noun, pronoun, adjective, adverb, preposition, conjunction, and interjection. Verb, nouns, adjectives, and adverbs are sometimes called vocabulary words because they make up more than ninety-nine percent of all words listed in the dictionary. But pronoun, preposition, and conjunction called function word because they are used over and over in our speaking and writing.¹⁷ This is the vocabulary words and its use in the sentences also its’ examples:¹⁸

- a. Verb: indicator of action or state of being (often link subjects and complement). Example: Dad had eaten. She was angry. Jane is a waitress.
- b. Nouns: subjects, objects or complement. Example: Ed will play the men for the work.
- c. Adjectives: modifiers of nouns and noun substitutes. Example: tall man, that one is new.
- d. Adverb: modifiers of verb, adjectives, adverbs, or whole clauses. Example: Acted wisely, a very tall man, almost never sang. Hatch and Brown state that adverbs are similar to adjective in many ways although they typically

¹⁷John C. Hodges, Mary E. Whitten, Harbrace College Handbook 5th edition (US America: Harcourt, 1962), 8.

¹⁸ Ibid, 9.

assign distribute to verbs, clauses or to entire sentence rather than noun.¹⁹

To develop language skills, people must take into account vocabulary. The more words they know, the better they may achieve comprehension and production of language, according to doff differentiates active vocabulary and passive vocabulary.

Active vocabulary is words which students will need to understand and use themselves. Passive vocabulary refers to which we want students to understand but which they will not need to use themselves.²⁰ In the vocabulary determine the degree to which he or she wishes to concentrate on testing the student's active or passive vocabulary.²¹

In conclusion, there are two kinds of vocabulary, passive and active vocabulary. Active vocabulary included words used for comprehension and production of language, while passive vocabulary involves words used for comprehension language.

c. Component of Vocabulary

¹⁹Hatch E and Brown C, Vocabulary, Semantics, and Language Education (New York: Cambridge University Press, 1995), 230

²⁰Andrian Doff, Teach English A Training Course For Teacher(British: Cambridge University Press, 1988), 19.

²¹ J. B. Heaton, Writing English Language Tests (London and New York), 51.

Many factors appear to play a role in vocabulary development.²²

Mastering vocabulary items should mean mastering the following components:

1. Frequency

Frequency has been accorded a high level of significance in ELT for many years as a result of the use of word. Frequency counting as a procedure informing syllabus and material design

2. Pronunciation

In the initial stages of language learning it is common for teachers to insist on a Fairmount of pronunciation practice of new words to help learner acquire the correct stress pattern of a syllables.

3. Contextualization

Shouten Van Parreren goes on to argue that texts, in contrast, present a linguistic and psychological reality and that presenting words in the context of a text will provide support and reduce interference.

4. Depth of processing

We lack language learning research studies to confirm this, thought it would certainly accord with teachers institutions and with self-reports from learners.

5. Building word network

²² Tricia Hedge, Teaching and Learning in the classroom (New York: Oxford university Press, 2000) 119-123.

The general use for teachers seems to whether learners should simply be encouraged in no-specific ways to actively built their own associations for new words and thereby extend the networks of the material lexicon, or whether vocabulary learning activities should include direct instruction which aims to shape the associations learners make.

d. Aspect of Vocabulary

Vocabulary has some aspects; it is useful to look at them under these headings:

1. The Form

- a. What part of speech is the word, noun, verb, preposition, etc.
- b. How is it spelled- is it regular or irregular ?
- c. Does it belong to a “family” of word, example electricity, electrical, election
- d. How is the word, or combination of words, pronounced and, in the word of more than one syllable?
- e. How does the word collocate with surrounding words? It is part of a set expression.

2. The Meaning

- a. Many words have more than one meaning.
- b. What is the connotation of the item?
- c. Could the vocabulary item have different meaning for different people?

3. The Use

- a. How is vocabulary item used²³?
- b. Does it have restricted used?
- c. Does it belong to a particular style or register?

e. Type of Vocabulary Knowledge

Vocabulary knowledge is knowledge; the knowledge of a word not only implies a definition, but also implies how that word fits into the world.²⁴ Vocabulary knowledge is not something that can ever be fully mastered; it is something that expands and deepens over the course of a lifetime. To develop language skills, people must take into account vocabulary. In communication, comprehension and production of language, according to N Robert Schmitt differs vocabulary into two types of vocabulary knowledge they are receptive knowledge and productive knowledge.²⁵ The following is a discussion about these two types of vocabulary knowledge.

To incremental nature of vocabulary acquisition manifests itself in a number of ways. We have all had the experience of being able to recognize and understand a word when we see it in a text or hear it in a conversation, but not being able to use it ourselves. This common situation shows that there are different degrees of knowing a

²³ Roger Gower and His Friends, Teaching Practice Handbook (Dram Philip, Macmilan, herneman, 1995), 44.

²⁴ Penny Ur, Acourse in language teaching (Cambridge: Cambridge University Press, 1996), 256.

²⁵N Robert Schmitt, Vocabulary in Language Teaching (USA: Cambridge University Presss, 2000), 4.

word. Being able to understand a word is known as receptive knowledge and is normally connected with listening and reading. If we are able to produce a word of our own accord when speaking or writing, then that is considered productive knowledge (passive/active are alternative terms).²⁶

Based on research by Laufer, investigated three types of vocabulary knowledge they are: passive, controlled active, and free active.²⁷ Passive knowledge involves understanding the most frequent meaning of a word, controlled active knowledge involves cued recall (where the first few letters of a word are included to eliminate other possibilities), and free-active knowledge involves spontaneous use the word.²⁸

From the discussion above can be concluded, there are two types of vocabulary knowledge they are receptive knowledge and productive knowledge. Vocabulary passive, controlled active, and free active include productive knowledge.

f. The importance of Vocabulary

Vocabulary is important aspects to master English. Because the learner will be able to improve their English knowledge, especially in English language and learner can easily learn it. Besides that,

²⁶ Ibid, 4.

²⁷ Susan M Gass and Larry Selinker, *Second language Acquisition: An Introductory Course* (USA, Routledge, 2008), 452.

²⁸ Ibid, 453.

vocabulary is a group of words in language. People use vocabulary which is arranged into sentence to express their opinion, thinking, and also idea in their society. They use it in social communication. The sentences contain some sense with is constructed through meaningful word. Vocabulary is very important in a language learning as Jack and Willy said, Vocabulary is a core component of language proficiency and provides much of the basic for how speak, listen, read, and write.²⁹

Therefore, mastering vocabulary is very important for the students who learn English as a foreign language. That is why everybody who learns English or a certain language should know the words. The mastery of vocabulary can support them in speaking when they are communicating to people can write and translate the meaning of words when they definite English. If the students do not know the meaning of words, they will not be able to speak, write and translate anything English.

g. The Factor Influence Vocabulary

According to Gower, there are seven factors influence the vocabulary items is easy or difficult to mastery. They are similarity to

²⁹ Jack C Richard and Wily Renandya, *Methodology in Language Teaching: An Anthology of Current Practice* (Cambridge, Cambridge University Press, 2002), 255.

L1, similarity of English words already known, connotation, spelling, and pronunciation, multi-word items, collocation, and appropriate use.

The explanations as follows:³⁰

1. Similarity to L1

The difficulty of a vocabulary item often depends on how similar the item is in form and meaning to the students' first language.

2. Similarity to English words already known

Students have some English than a word which is related to an English word they already familiar with is easier than one which is not.

3. Connotation

Connotation refers to a meaning that is implied by a word apart from the thing which it describes explicitly. Words carry cultural and emotional associations or meaning in addition to their literal meanings or denotations.³¹

4. Spelling and pronunciations

The spelling of many English words can cause problems for students who speak languages with very regular spelling system (Spanish, for example). Particular spelling patterns can also cause

³⁰Siti Azizah, Vocabulary Learning Strategies and Language Learning Outcomes Okara, 5 (Mei, 2009), 137.

³¹<http://literacydevices.net/connotation/> accessed on April 2015

confusion where the pronunciation is concerned. For example, it is easy to understand why many students confuse the meaning, spelling and pronunciation of these words: through, though, thought, tough, thorough.

5. Multi-word items

A lexical item may consist of more than one word, as in a compound noun such as tennis shoes or sport car, or a phrasal verb such as to put someone up. Phrasal verbs are notoriously difficult for learners of English because they are made up of simple words (often preposition or adverbs) which are easily confused. There is a world difference between putting someone up and putting someone down. Phrasal verb also causes grammatical problems: e. g, look up the chimneys vs. look chimney up (in the dictionary).

6. Collocation

The way some grammatical structures are formed depends on knowing which words go with others and which do not. Linda also states that knowing syntactic behavior associated with the words and also knowing the network of association between that word and other words in the language.³²

7. Appropriate use

³² Linda Taylor, *Teaching and Learning vocabulary*(Cambridge: University Press, 1990),

Gower points some words and expressions are restricted to use in particular contexts. Also it is important that students know whether the word or phrase has a marked style-informal or formal. Students should take care with the use of colloquial and slang expressions.³³

h. Vocabulary Achievement

We understand that the goal of teaching vocabulary is make students have language skills in listening, reading, speaking, and writing. Actually, the teacher consciously or unconsciously has been teaching language skills covering listening, reading, speaking, and writing.

Achievement is successful, gain or reach of the effort.³⁴ Such tests are usually called achievement tests, making reference to the fact that students have to struggle through a course or a learning experience of source sort to “achieve” a certain amount of control of the language.³⁵

Vocabulary achievement means the ability of the students to express their ideas both in spoken or written form. Vocabulary in this research refers to the mastery of words like verbs, adjectives and

³³ Roger Gower, et al., Teaching Practice handbook (Thailand: Macmillan, 1995), 144.

³⁴ Oxford, Oxford Learners Pocked Dictionary New Edition (Oxford University, 2009), 4.

³⁵ Robert Lado, Language Testing: The Construction And Use Of Foreign Language Tests(Longmans), 369.

nouns. To know the students' vocabulary achievement it can be seen from the students' vocabulary score.

2. Numbered Heads Together Technique

a. Definition of Technique

In the teaching language the teacher has to distinct between approach, method, and technique.

Antony states that an approach is a set of assumption dealing with the nature of language, learning, and teaching. It also can define as theoretically well-informed positions and beliefs about the nature of language learning, and the applicability of both pedagogical settings.³⁶ Approach can make learning and teaching can be grown. An approach to language pedagogy is not just a set static principle "set in stone". It is, in fact, a dynamic composite of energies within a teacher that changes (or should change, if one is a growing teacher) with continued experience in learning and teaching.³⁷ Developing appropriate pedagogical approach teachers ability, not only developing theories but also developing teacher experience. In conclusion, it can be said that an approach defines assumptions, beliefs, and theories about the nature of language

³⁶ H. Douglas Brown, *Principle of Language Learning and Teaching: Second Edition* (New York: Addison Wesley Longman, 1993), 14-16.

³⁷ Jack C. Richard, and Willy A. Renandya, *Methodology in Language Teaching: An Anthology of Current Practice* (Cambridge, Cambridge University Press, 20012), 11.

learning. Approach not just a set of static principle but a dynamic composite of energies within a teacher that changes.

Method is describes as an overall plan for systemic presentation of language based upon selected approach. It is a generalized set of classroom specifications for accomplishing objectives. A method must be prepared before the teacher learning process, the right method then students will always understand.³⁸ Methods tends to be concerned primarily with teacher and students roles and behaviors and secondary with such features as linguistic and subject matter objectives, sequencing, and materials. They are almost always thought of as being broadly applicable to variety of audiences in variety context.³⁹ According to Richard and Roger, a method is an umbrella term for the specification and interrelation of theory and practice.⁴⁰ Theory and practice are two important things in education and inter-related. With a good theory without practice then the theory can't be proven. It means that teaching method is the way that is used by teachers to communicate with their students during teaching-learning process. The best teaching method is a method that can increase students learning activity.

³⁸ H. Douglas Brown, *Principle of Language Learning and Teaching: Second Edition* (New York: Addison Wesley Longman, 1993), 14-16.

³⁹ Ibid.

⁴⁰ Ibid.

Technique is systematic manner to do something (KBBI,1995). Technique also a trick, tactic or invention which used to finish and complete the direct objective.⁴¹ Brown defines technique of teaching as ... the specific activities manifested in the classroom, which are consistent with a method and therefore in harmony with an approach as well.⁴² The researcher thinks that every technique has strength and weakness of each. Technique of teaching has an essential position in the teaching learning process. It enables the teacher to transform subject matter to students easier. So, the teacher must determine the appropriate technique in order that the learning objective can be reached well.

In conclusion, technique is a form of exercise, activity or task that is used for learning process in realizing the aims lessons.

b. Vocabulary Learning Technique

The teacher's task is to provide learners with opportunities for practising and connecting words in various ways to stimulate them to retrieve words from memory and use them for all language skills, may serve as guidelines in planning and selecting tasks and

⁴¹Iskandarwassid, Dadang Sunendar, Strategi Pembelajaran Bahasa (Bandung: PT Remaja Rosdakarya, 2008), 66.

⁴² Douglas Brown, Principles of Language Learning and Teaching (San Francisco: Longman, 2000), 169.

activities at this stage of vocabulary teaching. Some of the tasks are:⁴³

1. Mechanical repetition of words. Although deep level processing is more effective in the long run, loud repetition may also contribute to memorisation of word.
2. Copying words. If accompanied, for example, by loud repetition or visualisation of its meaning, copying can aid memory.
3. Word manipulation. This include exmples of tasks such as matching words and their definition, grouping words, finding the odd one out.
4. Integrating new words with the already known. Activating linguistic pre-knowledge and knowledge of the world creates a link between new words and already known words. In the Process of creating the links, new words become more meaningful and organised, and thus easier to learn. This can be achieved in various ways.
5. Semantic elaboration. It facilitates the creation of links and semantic network, as well as deep level of processing. The following are procedure based on semantic elaboration: semantic feature analysis; semantic mapping, which also serves as a visual reminder of links between words; ordering or

⁴³Visnja Pavicic T, Vocabulary Learning Strategies And Foreign Language Acquisition; Second Language Acquisition (Toronto: Multilingual Matters, 2008), 21-23.

classifying words, which helps learners to organise and distinguish differences in meaning between words; pictorial schemata, such as grids or diagrams, which emphasise distinctive features and require learners to deeply process words by organising words and making their meanings visual and concrete. These techniques are also suitable for presenting and revising collocations.

6. Creating mental images by drawing diagrams, illustrations of meaning, etc.
7. Personalisation. Personalisation makes the learning material psychologically 'real'. It can be achieved by giving personal examples, i.e. by relating a word to real events or personal experience.
8. Tasks for word identification. The aim of these tasks is to get learners to pay attention to specific lexical items and to recognize their form. Concrete examples are finding words in a text, working on a 'word snake' puzzle, solving anagrams.
9. Tasks for recalling words from memory. Activating knowledge, i.e. an attempt to recall a word's meaning with the help of the given meaning, and thereby enhancing memory. Therefore, the teacher should deliberately encourage recall at spaced intervals. This task may be realised through a number activities: acting the word out, replacing the word with its synonym or antonym,

giving a definition, translation, cross-word puzzles. Also, reading and listening activities stimulate word identification.

10. Tasks for expansion of lexical knowledge. These are concerned with providing additional information on lexical items in order to cover as many components of lexical knowledge as possible. This activities that seen worthwhile in this respect are analysis of word formation, analysis of grammar categories and forms, highlighting collocations.

11. Productive use words. By using words in a meaningful context learners create mental links. Activities that promote use of vocabulary include the following: completing sentences or texts, with words offered or not, using words in sentences, conversations, stories.

12. Multiple ecounters with the word. All above-listed activities can offer learners opportunities to encounter words many times and in different contexts. A variety of tasks and multiple encounters of a word ensure a more systematic coverage of various aspects of lexical knowledge and enable learners to build up an adequate lexical knowledge and consolidate in long-term memory.

In conclusion, by combining the twelve common stage tasks in vocabulary learning will enhancing teacher learning technique in

teaching vocabulary and easier students to improve their vocabulary achievement.

c. Definition of Numbered Heads Together (NHT)

Cooperative learning also called collaborative learning, an approach to teaching and learning in which classrooms are organized so that students work together in small cooperative teams. Such an approach to learning is said to increase students' learning since (a) it is less threatening for many students, (b) it increases the amount of students participation in the classroom, (c) it reduces the need for competitiveness, and (d) it reduces the teacher's dominance in the classroom.⁴⁴ So the students become more active, improving the participation of students in the class, students exchange ideas and solve problems faster than working alone.

Cooperative learning refers to a variety of teaching in which students work in small groups to help each other in learning the subject matter. In a cooperative classroom, the students are expected to help each other, discuss and argue with each other, to hone the knowledge that they possess.⁴⁵

Numbered Heads Together (NHT) technique is one of the techniques of cooperative learning that is developed by Kagan in

⁴⁴ Jack C. Richard, And Richard Schmidt, Longman Dictionary of language Teaching and Applied Linguistic(United kingdom, pearson education limited, 2010), 135.

⁴⁵ Robert E, Slavin, Cooperative Learning(London, Allymand Bacon, 2005), 4.

1992. In this strategy, the students work in group and they discuss together to find the answer. NHT is easy to use when the class has existing learning teams. In this strategy, the students cannot do the task by themselves, but they have to discuss and join their ideas with their teammates. The success of the group depends on every individual's success because every student has their own responsibility of their assignment so every member cannot entrust to the other members without working. Every student in the group has the same chance to get maximum score. By using this technique, it can motivate the students to get the maximum score by studying harder. Every student can compete honestly with each other though with their teammates. The technique gives positive effect for the students, such as they can learn how to cooperate with each other, and how to lose but still have a big motivation to get a maximum score and to be the winner.

d. The Procedures of the Use of Numbered Heads Together (NHT) Technique

Cooper (1999:281-282), has suggested that there are some steps that are used in Numbered Heads Together (NHT) strategy, as follows:⁴⁶

1. Plan.

⁴⁶ J.M Cooper, Classroom Teaching Skills(Boston: Houghton Mifflin Company, 1999), 281.

2. Form teams.
3. Numbered students.
4. Pose the question.
5. Put Heads together.
6. Call the number of the respondent.

In the first step, plan, the teacher has to prepare the teaching material, especially vocabulary. The first plan is the teaching material. The teacher must be ready for the materials that will be taught. In this case the teacher should decide the appropriate vocabulary tasks in the vocabulary materials. This step is necessary because the teacher must be ready before coming to the class. Assigning the students into groups is the second step called form teams. In each group might consist of four up to five members. The members of the group consist of the low, average and high achiever. It is to avoid the jealousy between the low and high achiever. Numbered students are the next step that the teacher has to do. It means that, the teacher gives number head from 1 up to 4 to the student in every group. The fourth is starting the competition, the teacher distributing the question. In other words, the teacher gives the questions to the group. Cooper called pose the question. The students start to discuss to answer the question, the students only have limited time to discuss, and because of that they have to manage the time effectively. They have to discuss the

answer very quietly if not the others group will hear the answer. Every student in the group must prepare for the answer, because the students do not know which number will be called by the teacher. This step called put head together. The next step is called call the number of the respondent. The teacher calls the students' number to answer the question randomly. The teacher can use spinner to assure the randomness.

This technique called Numbered Head Together because of two reasons, the first is the teacher gives number to the students and the students have to use it in their head and the important thing is the students have to discuss or do the assignment together in a group as the second reason.

e. The Advantages of Numbered Heads Together (NHT) Technique

This technique has several advantages regarding several aspects. The benefits include positive interdependence, individual accountability, equal participation, and simultaneous interaction.

Explanations of the advantages are as follows:

1. Positive interdependence

The students are able to learn from each other. They must also work together to ensure there is one product to their learning. They must check that everyone can understand and answer the question.

2. Individual accountability

Students are accountable to each other for sharing ideas.

The student may also be required to share their partner's ideas to another pair whole group. Every student must be able to give the group response to the question.

3. Equal participation

Each student within the group has an equal opportunity to share. It impossible that one student may try to dominate.

The teacher can check this does not happen.

4. Simultaneous interaction

High degrees of interaction at any one moment all of the students will be actively engaged in purposeful speaking and listening.⁴⁷

Numbered heads together technique encourages successful group functioning, because all member needs to know and ready to explain their group answers and because when the students help their group mates, they help themselves and their whole group, because the response given belongs to the whole group, not just to the group member giving it.

In conclusion numbered heads together technique is very useful for the language learner because in this technique the learner compete with each other to show how many vocabularies that the

⁴⁷Siti Fairuz, Numbered Heads Together, (<http://www.scribd.com/doc/17093286/Numbered-Head-Together-NHT>), accessed on April 07, 2015 at 14:35

learner has. It means that, this technique can develop the learners to find their new words and practice it.

f. The Weaknesses of Numbered Heads Together (NHT) Technique

Besides has several advantages Numbered Heads Together technique also has weaknesses. This weaknesses of this technique is individual students may be able to coast on others' knowledge but at least will experience their own lack of knowledge privately and may be prompted to address it.⁴⁸

The other case about the weaknesses of Numbered Heads Together technique are brilliant student will tend to dominate, so that will cause inferior and passive attitude for weak students. Then, discussion process can go smoothly if there are students who simply copy the work of students who are good without having an adequate understanding. The last, grouping students require seating arrangements different and require specific time.⁴⁹

In conclusion, using Numbered Heads Together technique the teacher should be able to regulate the learning process as possible. The teacher should be able to create the conditions for effective learning so the weaknesses can be minimized.

⁴⁸ Jack C Richard and Wily Renandya, *Methodology in Language Teaching: An Anthology of Current Practice* (Cambridge, Cambridge University Press, 2002)

⁴⁹ Arends, Richard I, *Classroom Instruction and Management* (USA: McGraw-Hill Company, 1997/, 126.

B. Previous Research Finding

There were some research findings related with the effect of using Numbered Heads Together Technique to the students' vocabulary achievement. One of the researchs was presented by Endah Yunitasari under the title Using Numbered Head Together in Teaching Reading to the Tenth Grade Students of MA Ronggowarsito in Academic Year 2012/2013.

From the result of the research, the researcher concludes that using numbered head together in teaching reading are (1) This technique cope the students' problems in teaching reading. The problems that can be solved are students easily get bored on the teachers teach using direct method, difficulty in reading comprehension when they read in their own and difficulty text or never heard or seen the word in the text, lack and lazy on reading text. (2) The strengths of numbered head together technique are: this technique encourage students to take greater responsibility for own learning and to learn from one another, this technique improve students' understanding in material and reading ability, the students are more interested and enjoy working together with their friend in teaching reading, the confidence of students is also increased, each student are get the opportunity to increase their vocabulary, students are ready to learn, this technique can help students to be more active and motivated students in teaching and learning process. (3) The problems

faced by teacher in using numbered head together technique in teaching reading are: it is time consuming, not all numbers called by the teacher, and some students are being noisy and rowdy at the time of the division group.

Another researches that similar with this research was thesis from Isnani Agustina under the title “The Implementation of Numbered Head Together (NHT) to Improve Students’ Reading Comprehension In Narrative Text for the Tenth Grade F at MAN 2 Ponorogo In Academic year 2012/2013”. This research was a classroom action research. The subject was the students of X F of MAN 2 Ponorogo. There were thirty-three students in class X F. It consists of eighteen females and fifteen males. There are some steps, and those are planning, acting, observing, and reflecting. These steps happened in each cycle, and they were useful to make this research systematic. To collect the data, she used some instruments such: observation, test, questionnaire, interview, field notes, and documentation. The data from the students questionnaire that were gained from the six questions showed that the students gave positive responses in reading activity.

Based on the result from the research, the implementation of numbered head together technique was able to improve students’ activeness and cooperation. It can be identified by the percentage in second cycle is better than the first cycle. There are 62,5% students’ activeness in the first cycle and 86,45% in the second cycle. There are

55,20% students' cooperation in the first cycle and 88,54% in the second cycle.

From the previous researchs above the researcher tries to conduct the research with different research design. The researcher uses quantitative experimental research design. There are seventh grade students of MTs Ma'arif that being subject of this research. With the different research design the researcher also provides different statement of the problem. The statement of the problem is there any significant difference using Numbered heads together technique on the seventh grade students' vocabulary achievement at MTs Ma'arif Balong in academic year 2014/2015 ?

C. Theoretical Framework

In this study the researcher tries to help students by applying such technique. It is Numbered Heads Together (NHT). The researcher expects by applying it, the students will be able to increase students' vocabulary achievement.

By using Numbered Heads together technique (NHT) can improve students' vocabulary achievement. The researcher expects that the students feel more interested in learning, easy to understand and of course they will be motivated to learn and understand the subject matter.

This research is experimental research, with the effect using numbered heads together technique on the seventh grade students' vocabulary achievement at MTs Ma'arif Balong in academic year

2014/2015. The research used numbered heads together technique to get better achievement of the students' vocabulary. After that the researcher observed this process to know, is there any significant difference achievement between students taught numbered heads together technique and not being taught numbered heads together technique at the seventh grade of MTs Ma'arif Balong in academic year 2014/2015.

This research consists of two variables:

X : Numbered Heads Together Technique

Y : Students' Vocabulary Achievement

The step to know The Effect of Using Numbered Heads Together Technique on the Seventh Grade Students' Vocabulary Achievement at MTs Ma'arif Balong In Academic Year 2014/2015 are; first there is one group of class that is taught vocabulary using Numbered Heads Together technique and another group is without Numbered Heads Together technique. After one group has used Numbered Heads Together technique we try to test them to get the score . Then, after we have collected the data we can try to find the significant difference achievement between them.

D. Hypothesis

Hypothesis is a temporary answer to the problem of theoretical research that is considered most likely and highest levels were correct.

There are two hypothesizes

Ha : There is a significant difference of using Numbered Heads Together Technique on the seventh grade student's vocabulary achievement at MTs Ma'arif Balong in Academic Year 2014/2015

Ho : There is not a significant difference of using Numbered Heads Together Technique on the seventh grade student's vocabulary achievement at MTs Ma'arif Balong in Academic Year 2014/2015

STAINPONOROGO

CHAPTER III

RESEARCH METHODOLOGY

The existence of the research methodology has a goal of guiding the research in order to work systematically. The research methodology covers a set of research activities conducted by researcher. It involves research design, population and sample, instrument of data collection, technique of data collection, and technique of data analysis.

A. Research Design

In this study, the researcher used quantitative research method. Quantitative research is explaining phenomena by collecting numerical data that are analysed using mathematically based methods (in particular statistics)⁵⁰. It means, to analyse the data the researcher used statistical.

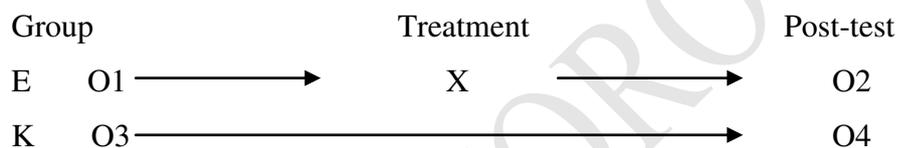
This research applied an experimental research. Experimental research manipulates and controls the cause variable and proceeds to observe the change in the effect variable. According to Manion in experimental research, the researcher deliberately controls and manipulates the conditions or makes change in the value of the independent variable and observes the effect of that change in the dependent variable. So when doing an experiment the researcher wants to control the environment as much as possible and only concentrate on those variables that

⁵⁰Daniel Muis, Doing Quantitative Research in Education, 1

the researcher want to study. There are several types of experimental research; some of them are true experimental, quasi-experimental, and pre-experimental.⁵¹

In this research, the experiment of research was quasi-experimental and use Non-equivalent (pre-test and post-test) control group design. Quasi-experimental research is a research that directly attempts to influence a particular variable, and when properly applied, it is the best type for testing hypothesis about cause-effect relationship.⁵²

Table 3.1 The Research Design



Notes:

E : Experiment class (the students who are taught use NHT technique)

K : Control class (the students who are taught use conventional technique (memorizing))

O1 : Pre test for the experiment class

O3 : Pre test for the control class

X : Treatment (Numbered Heads Together Technique)

O2 : Post test for the experiment class after using NHT technique

O4 : Post test for the control class after using conventional technique.

⁵¹ M. Adnan Latief, *Research Methods On Language Learning An Introduction* (Malang: UM Press, 2012) 92.

⁵² Jack Fraenkel and Norman Wallen, *How to Design & Evaluate Research In Education* (San Fransisco: Mc Graw Hill companies, 2000), 283.

This design is assumed to meet with the aim of this research that is to know whether or not there is a significant difference of the students' achievement that is given by using certain treatment.

Quasi-experimental indicates that random assignment of subjects to treatment groups was not accomplished.⁵³ Therefore, the researcher can only assign randomly different treatment to two different classes. They were control class and experimental class.

In Non-equivalent (pre-test and post-test) control-group design, a popular approach to quasi-experiment, the experimental group A and the control group B are selected without random assignment. Both groups take a pre-test and post-test. Only the experimental group receives the treatment.⁵⁴

Based on explanation above, this research employed two classes. They were experiment and control class as the subject. The experiment class is taught using numbered heads together technique and the controlled class is taught without numbered heads together technique. They taught by the class teacher who used the normal mode of instruction. Vocabulary instructions involved: provide the students with information that contains the context as well as the meaning of the word; design instruction that engages students and allows sufficient time for word learning; make sure students have multiple exposures to the words with review and practice and; create a dialogue around the words.

⁵³ Walter R. Borg, *Educational Research: An Introduction* (London: Longman, 1983), 680

⁵⁴ John W. Creswell, *Research Design Qualitative, Quantitative, and Mixed Methods Approaches Third Edition* (United Kingdom: Sage Publication, 2009), 160.

Here, both the experimental and control classes were pre-and post-tested for thier knowledge of the information contained in the vocabulary achievement. Pre-test before treatment in order that to make students in same condition and to know the students' vocabulary achievement and post test after treatment to measure the effects of that treatment.

B. Population and Sample

1. Population

Population must be accessible and quantifiable and related to the purpose of the research.⁵⁵ Therefore, the researcher usually limit the sources of the data into the accessible population sources of data that the researchers have acces to get the data .

Based on encyclopedia of educational evaluation in Arikunto, population is a set (or collection) of all elements possessing one or more attributes of interest.⁵⁶ It means that population can be defined as all member of any well – defined class of people, events or object that have specific characteristic defined by the researcher to learn and the be deduced.

In this research, the population was seventh grade students of MTs Ma'arif Balong. The total number of population were 85 students. There were 3 classes. For those classes, the researcher choosed two classes of the seventh grade as experiment class and controlled class. To select a sample, the researcher took a

⁵⁵ Mark Balnaves and Peter Caputi. *Introduction to Quantitative Research Methods: An Invesrigate Approach* (London: British Library Cataloguing. 2001), 91.

⁵⁶Suharsimi Arikunto, *Prosedur Penelitian: Suatu Pendekatan Praktek* (Jakarta: Rineka Cipta, 2010), 173.

vocabulary achievement data that has been done by the teacher. Then, the value of the results, the researcher measured means and standard deviation of the classes (have capability-similar or not).

The result of homogeneity found that from the 2 classes considered homogen or have similar ability. Then among the 2 classes that belongs to experiment class and control taken as a sample in a lottery way. The result revealed that class C as an experimental class and class B as a control class. Meanwhile class A as a validity class.

2. Sample

According to Sugiyono, sample is a part of the number and characteristic possessed by population.⁵⁷ Furthermore, Suharsimi states that sample is partially or representative of the population studied.⁵⁸ From these statement, it can be stated that sample is a part of population and it must representative for research.

The sampling technique applied in this research is cluster random sampling. Cluster random sampling or sample area (group) is determined based on the sampling areas or groups that exist in the population such as school, class, region, and not individual.⁵⁹ The researcher choosed this sampling because cluster random sampling was easier in the implementation and manageable than the others technique. Moreover, the researcher limitation of time, energy, and fee.

⁵⁷Sugiyono, *Metode Penelitian Kuantitatif Kualitatif dan R&D* (Bandung: Alfabeta, 2008), 81.

⁵⁸Suharsimi.,*Prosedur Penelitian*. 117

⁵⁹Margono, *Metodologi Penelitian Pendidikan* (Jakarta: PT. Rineka Cipta, 1997), 127.

Based on the explanation, the researcher choosed a sample from two classes that have same level of background knowledge, because among of classes have not significant difference and choosing based on ability. The sample from seventh grade that researcher choosed B class and C class. Each class consist of 28 students. C class is became an experiment class and B class is became a control class.

C. Intrument of Data Collection

This research's instrument to collect data primary is test. According to Subana, Moersetyo and Sudrajat, test as a data collection instrument is a set of questions or exercises that are used to measure the skills, knowledge, intelligence, ability or skills possessed by individuals or groups.⁶⁰

In this study, the test was constructed by the researcher based on the standardized procedures of making test. The test is divided into two parts. They are pre-test and post-test. The pre-test is directed in the beginning study before the treatment. Pre-test was to gain information about the students achievement before the treatment as the teaching process. Post-test was to gain information about the students achievement after the treatment process finish.

In this research, the researcher used vocabulary achievement test which has already been prepared by the researcher to find out the effect of number head together technique. The form test is objective. There are 30 multiple choice items by took 60 minutes to completed.⁶¹ The test is measured the student's ability in

⁶⁰Subana, Moersetyo and Sudrajat, Statistik Pendidikan (Bandung: CV. PustakaSetia, 2000), 28-29.

⁶¹See Appendix 1

vocabulary achievement that has been previously taught by the teacher. The experiment was held in five meeting. They are pre-test, treatment 1, treatment 2, treatment 3, and post-test.

According to Suharsimi Arikunto a good instrument must fulfill two important of requirements, they are valid and reliable. Therefore, the researcher used instrument test with two tests, the first test is test of validity and the second test is test of reliability.

1. Test of Validity

Validity is a measure that indicates the levels of validity or the validity of an instrument. The instrument must be able to measure what should be measured.⁶² The method used in measuring the validation of the instrument is called content validity. A test or a measurement can be called a content test when it measures the special purposes which is equal with the material or content given.

In the validity test, the researcher uses product moment correlation formula by Pearson. The formula is:

$$r_{xy} = \frac{n\Sigma xy - \Sigma x.\Sigma y}{\sqrt{(n\Sigma x^2 - (\Sigma x)^2)(n\Sigma y^2 - (\Sigma y)^2)}} .$$

Notes:

⁶²Suharsimi. *Prosedur Penelitian*. 168

r_{xy} = Digit of index Product Moment Correlation

Σx = The total score X

Σy = The total score Y

Σxy = The total of result multiplication between score X and Y

n = Total of respondent⁶³

When the coefficient correlation was under 0,30, it can be concluded that the item was not valid instrument. Thus, the items said to be valid instruments if the coefficient correlation of magnitude more than 0,30.

In the case of this item analysis Masrun as cited by Sugiono stated “Correlation technique to determine the validity of this item until now the most widely used technique”. Furthermore, in giving the interpretation of the correlation coefficient, Masrun stated “Items that have a positive correlation with the criterion (total score) and high correlation, indicating that the item also has a high validity. Typically, the minimum requirements to be eligible is if $r=0,3$, then the item in the instrument shall be declared invalid.⁶⁴

Example of item No.3 (in the multiple-choice test):

$$r_{xy} = \frac{n\Sigma xy - \Sigma x \cdot \Sigma y}{\sqrt{(n\Sigma x^2 - (\Sigma x)^2)(n\Sigma y^2 - (\Sigma y)^2)}}$$

$$r_{xy} = \frac{29 \times 644 - 27 \times 666}{\sqrt{(29 \times 27 - (27)^2)(29 \times 15654 - (666)^2)}}$$

$$r_{xy} = \frac{18676 - 17982}{\sqrt{(783 - 729)(453966 - 443556)}}$$

⁶³Ibid, 170.

⁶⁴Sugiyono, Metode Penelitian, 178.

$$r_{xy} = \frac{694}{\sqrt{(54)(10410)}}$$

$$r_{xy} = \frac{694}{\sqrt{562140}}$$

$$r_{xy} = \frac{694}{749,7599616}$$

$$r_{xy} = 0,9256 \text{ (Valid).}$$

To test the validity and reliability of the instrument, the researcher took a sample of 29 respondent used 30 item of vocabulary test.⁶⁵ Validity of the calculated item instrument to 30 items about vocabulary material, there were 26 items about which declared valid are the item number 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 23, 24, 25,26, 27, 28, 29, 30.⁶⁶ The calculation result of data validity, as follow:

Table 3.2: The result of Validity Test

Item Number	"r" calculated	"r" table	Notes
1	0,0117	0,367	Not Valid
2	0,3456	0,367	Not Valid
3	0,9257	0,367	Valid
4	0,4165	0,367	Valid
5	0,4063	0,367	Valid
6	0,7502	0,367	Valid
7	0,7209	0,367	Valid
8	0,7951	0,367	Valid
9	0,5362	0,367	Valid
10	0,8869	0,367	Valid
11	0,8869	0,367	Valid
12	0,5999	0,367	Valid
13	0,4509	0,367	Valid
14	0,7739	0,367	Valid
15	0,7746	0,367	Valid
16	0,6549	0,367	Valid
17	0,7044	0,367	Valid
18	0,5405	0,367	Valid

⁶⁵See Appendix 2

⁶⁶See Appendix 3

19	0,6725	0,367	Valid
20	0,0548	0,367	Not Valid
21	0,5781	0,367	Valid
22	-2,23682	0,367	Not Valid
23	0,8408	0,367	Valid
24	0,8012	0,367	Valid
25	0,7801	0,367	Valid
26	0,6175	0,367	Valid
27	0,6175	0,367	Valid
28	0,7350	0,367	Valid
29	0,7503	0,367	Valid
30	0,7503	0,367	Valid

Based on the table, among 30 questions, there are 26 questions was valid and 4 questions was invalid. But the researcher still uses 30 questions for collecting data, because the questions can measure the special purposes which is equal with the material or content given.

2. Test of Reliability

Reliability defined as the level of internal consistency or stability of the measuring device over time.⁶⁷ In this research, the researcher uses a method of Kuder-Richardson. Application of this method using scores 1 for correct answers and score 0 for incorrect answers. K-R 20 formula is:

$$r_{11} = \left(\frac{n}{n-1} \right) \left(\frac{S^2 - \sum pq}{s^2} \right)$$

Note :

r_{11} : The reliability test

p : The subject proportion with right answer

⁶⁷ Walter R. Borg, Educational Research: An Introduction (London: Longman, 1983), 281

- q : The subject proportion with wrong answer
- Σpq : The total number of the multiply between p and q
- n : All item
- N : Number of students
- S^2 : The deviation standard of test

$$\begin{aligned}
 S^2 &= \frac{\Sigma x^2 - \frac{(\Sigma x)^2}{N}}{N} \\
 &= 15654 - \frac{(666)^2}{29} \\
 &= \frac{15654 - 15295,03448}{29} \\
 &= \frac{358,96552}{29} \\
 &= 12,37812138
 \end{aligned}$$

$$\begin{aligned}
 r_{11} &= \left(\frac{n}{n-1} \right) \left(\frac{S^2 - \Sigma pq}{S^2} \right) \\
 &= \left(\frac{30}{30-1} \right) \cdot \left(\frac{12,37812138 - 4,6485}{12,37812138} \right) \\
 &= \frac{30}{29} \cdot \left(\frac{7,72962138}{12,37812138} \right) \\
 &= (1,034482759) \cdot (0,62445836) \\
 &= 0,645991407 / 0.646 \text{ (reliable)}
 \end{aligned}$$

The calculation of reliability above can know the value of the variable instrument reliability of student's vocabulary achievement of class VII.⁶⁸ Values 0,645991407 then consulted with "r" table on the significance level of 5% is

⁶⁸See Appendix 4

0,367. Because “r” count (0,646) > “r” table (0,367), so the instrument can be said reliable. For more details it can be seen in the following table:

Table 3.3: Test Item Reliability

“r” arithmetic	“r” table	Explanation
0,645991407	0,367	Reliable

D. Technique of Data Collection

In data collection, there are three techniques employed to collect the data in this study. They are test, interview and documentation. The test is used to gain primary data. Meanwhile, interview and documentation are conducted to fulfill the supporting data.

1. Test

Test is used to measure students’ vocabulary achievement. A test, in simple terms, is a method of measuring a person’s ability, knowledge, or performance in a given domain.⁶⁹ Therefore, the researcher can measure the students’ ability easily.

In testing vocabulary achievement, the students were asked to answer some questions relating to the texts that were given by the teacher. Vocabulary test was used for the pre-test and post-test not only to measure the students’ achievement in vocabulary but also to collect the data.

⁶⁹H. Douglas Brown, *Language Assessment Principle and Classroom Practices* (San Francisco: Pearson Longman, 2003), 3.

This research choose traditional multiple-choice questions to evaluate students' vocabulary achievement. The number of each test is thirty items.

2. Interview

Interview are used as data collection techniques to conduct a preliminary study to find problems that must be investigated, and also to know things that the respondents are more in-depth and number of respondent little/small.⁷⁰ So, the researcher conducts in the classroom observation.

Interviews can be differenced in a structured or unstructured interview, and can be done through face to face or by telephone.

In this study, the researcher used structured interviews. Structured interview is a guided interview where the researcher uses the interview guide that has been arranged in a systematic and comprehensive data collection. Thus, the researcher uses this method to collect data about the condition of object of research.

3. Documentation

Documentation is a way of getting information or data through notes, transcripts, books, newspaper, magazines, agenda, etc.⁷¹ In other words, it can be stated that documentation is used to collect data through printed materials.

⁷⁰Sugiyono, Metodologi Penelitian Pendidikan, 194.

⁷¹Ibid., 231.

The documents used in this research were taken from students' result of the given test, teacher lesson's plan, and photograph of teaching-learning process. Beside that, the researcher also get the data about history of school, vision, mission, goals, facilities, infrastructure, and the structure organization of MTs. Ma'arif Balong.

4. Technique of Data Analysis

The analysis method is used in research is statistic inferential technique. It uses to prove the probabilities theory, where it also uses for data analysis for explanation aims.

In this study, the researcher applies a Quasi-experimental research to compare the mean score of experimental group that is taught by numbered heads together technique and the mean score of control group that is taught by conventional technique (memorizing). Through to analysis the data, the researcher used statistic calculation of the t-test to determine the final calculation of t_o (T observation) that is done to measure the last score of the experiment class and controlled class by using statistic calculation of the t-test with significance degree 0,05 as follows.⁷²

$$T_o \text{ score} : t_o = \frac{M_1 - M_2}{SE_{m_1 - m_2}}$$

⁷²Anas Sudijono, Pengantar Statistik Pendidikan (Jakarta: PT. Raja Grafindo Persada, 2005), 314-316.

Before the researcher use t test, the researcher applied Assumption test, namely normality test and homogeneity test :

1. Normality test using Kolmogorov-smirnov test. Each of the two populations being compared must follow a normal distribution. The steps of analyzing normality test as follows:

a. Formulated hypothesis

Ho : the data were not normality distributed

Ha : the data were normality distributed

b. Calculate the average (mean) to create a table

$$Mx = \frac{\sum fx}{n}$$
$$SDx : i \sqrt{\frac{\sum fx^2}{n} - \left[\frac{\sum fx}{n}\right]^2}$$

c. Calculating the value of fkb

d. Calculated each frequency divided by the number of data (f/n)

e. Fkb calculating each divided by the number of data (fkb/n)

f. Calculated the value of Z by the formula X is the original value of data and μ is the population mean can be estimated using the average of the sample or the mean while σ was the standard deviation of the sample values. Z values would be calculated each value after sorted smallest to largest.

$$Z = \frac{X - \mu}{\sigma}$$

σ

- g. Calculate $P \leq Z$
- h. For a_2 values obtained from the difference between columns 5 and 7 (f_{kb}/n and $P \leq Z$)
- i. For a_1 values obtained from the difference between columns 4 and 8 (f/n and a_2)
- j. Comparing the highest number a_1 with Kolmogorov-Smirnov table
- k. Test the hypothesis
- l. If a_1 maksimum $<$ kolmogorov smirnov table, receive H_a and data is normal distribution.⁷³
2. Homogeneity test using Harley test. Homogeneity test is the variance ratio test between two group or more.⁷⁴ This can be tested by Harley test.

$$F(\max) = \frac{\text{Var max}}{SD^2 \max}$$

$$\text{Var min} = SD^2 \min^{75}$$

The steps of analyzing homogeneity test as follows:

- a. Make a frequency distribution table
- b. Calculated SD formula

$$SDx : \sqrt{\frac{\sum fx^2}{nx} - \left[\frac{\sum fx}{ny} \right]^2}$$

⁷³Retno Widyaningrum, Statistik (Ponorogo: STAIN Ponorogo Press, 2009), 206-210.

⁷⁴Ibid. 214.

⁷⁵Ibid. 216.

$$SDy : \sqrt{\frac{\sum fy^2}{ny} - \left[\frac{\sum fy}{ny}\right]^2}$$

- c. Using the formula Harley:

$$F(\max) = \frac{\text{Var max}}{SD^2 \max}$$

$$\text{Var min} = SD^2 \min$$

- d. Comparing F (max) results calculated with F (max) table, with db = (n-1 ; k)
3. T-test is used to determine whether the means of two groups are statistically different from one another.

The data analysis used is T-test non-independent experiment with 5% significance level or 1% significance level with this formula as follow:

- a. Determining mean variable I and II, with formula:

$$M1 = M' + i \left[\frac{\sum fx'}{n1} \right]^2$$

$$M2 = M' + i \left[\frac{\sum fy'}{n2} \right]^2$$

- b. Determining deviations standard of variable I and variabe II, with formula:

$$SD1 : i \sqrt{\frac{\sum fx'^2}{n1} - \left[\frac{\sum fx'}{n1}\right]^2}$$

$$SD2 : i \sqrt{\frac{\sum fy'^2}{n2} - \left[\frac{\sum fy'}{n2}\right]^2}$$

c. Determining standard error mean variable I and II, with formula:

$$SE_{M1} = \frac{SD_1}{\sqrt{n_1-1}}$$

$$SE_{M2} = \frac{SD_2}{\sqrt{n_2-1}}$$

d. Determining the differences of mean variable I and mean variable II, with formula:

$$SE_{M1-M2} = \sqrt{SE_{M1}^2 + SE_{M2}^2}$$

e. to score

$$t_o = \frac{M_1 - M_2}{SE_{M1-M2}}$$

After all of the data are calculated, the last procedure is determining df (degree of freedom) with formula:

$$Df \text{ or } db = (N_x + N_y) - 2$$

Notes:

M1 = Mean of variable X (post-test)

M2 = Mean of variable Y (post-test)

SD1' = Standard Deviation x variable

SD2' = Standard Deviation y variable

SEM1' = Standard of error of x variable

SEM2' = Standard of error of y variable

- SEM1-M2 = Standard error between mean of x Variable and y Variable
- R12 = the correlation coefficient between x variable and y variable
- = the total number of score multiplication of x variable and variable
- $\Sigma f1'$ = the total number of scores of x variable
- $\Sigma f2'$ = the total number of scores of x variable
- $\Sigma f1^2$ = the total number of square scores of x variable
- $\Sigma f2^2$ = the total number of square scores of y variable
- To = t- Observation
- N = the number of subject
- (N-1): db: Degree of Freedom⁷⁶

⁷⁶Ibid, 161.

CHAPTER IV

FINDING AND DISCUSSION

In this chapter the researcher report on research location, data description, data analysis, and discussion.

A. Research Location and Time of the Research

1. General Location

The researcher conducted the research at MTs Ma'arif Balong in academic year 2014/2015. It is located in the Jalen Village at Balong District Ponorogo. Even MTs Ma'arif Balong as the Islamic Junior High School which was third built in the Balong area, it has many students and not least with other Islamic Junior High schools in the region Ponorogo.

MTs Ma'arif Balong supported by professional educators with educational qualifications S1. At its inception (1995) MTs Ma'arif Balong only have a few classes and now has developed into 10 classes with more complete facilities. The school is located on Jenderal Sudirman No 01 street. MTs Ma'arif Balong continue to develop themselves and are now aligned with another school in the town of Ponorogo. While it continues carved achievement both in academic and non-academic.⁷⁷ For more information about MTs Ma'arif Balong.⁷⁸

MTs Ma'arif Balong uses Kurikulum Tingkat Satuan Pendidikan(KTSP). This curriculum is developed from standard of content by school based on their context and potential. They improve the curriculum based on the demands of the

⁷⁷ The interview conducted on Monday, February 16, 2015 at 10.20 a.m

⁷⁸ See Appendix 5,6,7

times. They use KTSP for all subject. So, the researcher also uses lesson plan with KTSP model.⁷⁹

Teachers are figure to be ushwah khasanah or good attitude example for the students. The teachers have to act as advisor for the students in developing creativity and self potential and as motivator that help the students raise the goal and aspiration. The existense of a teachers at MTs Ma'arif Balong has a qualified majority of S1. This greatly affects the performance of the school in an effort to improve the quality of education. The whole teachersof MTs Ma'arif Balong from many universities such as graduated from UNMUH , STKIP, INSURI, IKIP and so on. So that, innovation and creativity teachers has increased and potential as educators, teachers, social and personal services can already be actualized although not 100%. The total of teachers in MTs Ma'arif Balong is 22 and 2 official employee.⁸⁰

Students are the important component in education course. There are 238 students of MTs Ma'arif Balong in academic year 2014/2015. It it devided into three grades; the seventh grade, the eighth grade, and the ninth grade. The researcher conduct the study at the seventh grade students, because the big problem on english lesson is at the seventh grade. Some problems are like the students found difficulties in understanding english texts. The students didn't understand the meaning of the english text. The students often forget some materials that the teacher has explained and the most important problem is the

⁷⁹ Appendix 8

⁸⁰ The interview conducted on Monday, February 16, 2015 at 10.20 a.m

students have a low of vocabulary. This is as an interview on 16th February 2015 with an English teacher at the seventh grade in MTs Ma'arif Balong, Mrs. Sumiati, S.Pd. By implementing numbered heads together technique, hopefully those problem are solved. It is effective applied in teaching vocabulary that is why this technique is worthy to be applied because it motivates students to pour their ideas easily.⁸¹

2. Time of The Research

This research was conduct in March, 4th – 16th 2015. The schedule for experiment and control class can be seen in the table below:

Table 4.1: Experiment Class Schedule

Date	Activities
March, 4 th 2015	Pre-test
March, 5 th 2015	First treatment
March, 6 th 2015	Second treatment
March, 12 th 2015	Third treatment
March, 13 th 2015	Post test

Table 4.2: Control Class Schedule

Date	Activities
March, 4 th 2015	Pre-test
March, 6 th 2015	First meeting
March, 9 th 2015	Second meeting
March, 13 th 2015	Third meeting
March, 16 th 2015	Post test

⁸¹See Appendix 9

B. Data Description

The population that was used in this research was the seventh grade students of MTs Ma'arif Balong in academic year 2014-2015. The researcher took 56 students as a sample. From the 56 students as sample, the researcher divided them into two groups. Each group consisted of 28 students. The first group as experimental group was taught using numbered head together technique and the second group as control group was not being taught using numbered head together technique.

1. Procedure of Experiment

This research used experimental research which made two classes as the sample, those were VII C as experiment class and VII B as a control class. The number of the experiment class was 28 students. They had followed pre and post test that conducted by the researcher.

Firstly, the students were given pre-test to make them in some condition or homogeneity before beginning the research. The form test was objective. There were 30 multiple choice items by took 60 minutes to completed. It was hold on March, 4th 2015.

Secondly, the first treatment of numbered head together technique held on March, 5th 2015. The material was descriptive text. The students ask to find out the similarity from the vocabulary on the text. They work in group but they have individual task.

Thirdly, the second treatment held on March, 6th 2015. The material was descriptive text too, but had different text with the first treatment.

Fourthly, the third treatment held on March, 12th 2015. The material was descriptive text. The students should made a list of word with the meaning based on the text. Students ask to mention vocabulary around them.

Fifthly, that was post-test. It was hold on April, 30th 2015. It used to measure wheather the numbered head together technique is success or not in teaching vocabulary.

The pre-test and post-test took factual information was limited only in descriptive text. Word identification, word meaning, reading the word, writing the word, word consciousness was assessing in the vocabulary test. It used to know the true result whether the technique was effective or not. The test item were constructed based on the indicators and the material which were suitable with the themes and sub-themes suggested in English book for the seventh grade students of junior high school.⁸² The pre-test and post-test were objective test which consist of 30 items multiple-choice. The total score is 100 and the value of each correct item is 1. One reason for choosing this type of testing was that it was easy to mark. The marker does not run the risk of being subjective.

The treatment was applied in the present study called numbered heads together technique. The students work in group but they have different tasks. This was done with the teacher's help who stands as a facilitator of this technique. First, teacher stated the topic to the students using pictures. Second, teacher guided the learning activity with grouping the students. Thirdly the teacher gives each member in a group a number from 1 up to 4, and then the teacher distributes

⁸²See Appendix 10

the task. Fourthly, the teacher asks the students to put heads together and discuss together. The last the teacher cross check the student's answer by calling the number of the students one by one.

2. Procedure of Control

This research takes VII B as a control class which apply conventional technique such as: directing showing picture to the students; teacher-led questioning; requesting the students to memorize the words that they have found; distributing task to the students; requiring students to do the task; and discussing answer. It is trying to make teaching and learning process naturally, so the result of the students describe the capability of the students truly.

The researcher took 28 students of VII B class for pre-test and post-test. There are five meeting for the class. The procedure of control class is the same with the procedure of experiment class. There are pre-test, first, second and third meeting with conventional/normal mode of instruction and post test.

The material which was taught to the students were same with experimental class. That is one of the principles in the experiment research, different treatment with the same material. Not only same in the material but also the pre-test and post-test of the control class same with experiment class.

The conventional technique is not a new technique which is taught by the teachers in teaching and learning process. So, the students are familiar with the technique. It is good technique to make the students paying attention to the teachers and also it will suitable technique used by the teachers to transfer their

knowledge to the students. But some weaknesses from this technique are that the students will be bored, do not interesting and the class is very crowded, because the teachers can not control the situation in the class.

The teaching and learning process using conventional technique has some steps, they are:

- b. The teacher show pictures
- c. The teacher ask to the students to memorize the words
- d. The teacher distribute the task.
- e. The students do the task
- f. The teacher discusses the task together with the students.

From the result above, it can be conclude that, the conventional technique is a good technique to transfer knowledge from the teacher to the students, because it is easy and familiar technique, but the students will be in passive place, bored and also they seldom to think critically.

3. The Result of Students' Pre Test in Experimental Group (7C)

The table below showed the score of the pre test of the students taught using numbered head together technique.

Table 4.3 The Score of Students' Pre Test In Experimental Group

No.	Name	Scores
1	Afidah NurAini W	90
2	Agus Ekostianto	85
3	Ahmada RP	73
4	Ahmad Bahrul Muttaqin	68
5	Alfina Rahmawati	90

No.	Name	Scores
6	Allan Ahmad Firman	43
7	Aprinda Binti Mahmudah	68
8	Ayu Nanda Widya Putri	65
9	Bambang Herianto	63
10	Didik Prasetyo	43
11	Erni Istiyarni	58
12	Fania Farika	58
13	Ihsan Yusuf	28
14	Ilham Taufik Kurohman	63
15	Ivan Fadri Santosa	73
16	Lucky luSiana	40
17	Moh Aslan Rifai	73
18	Muhamad Abdul Azis	85
19	Muhamad Saifudin	73
20	Nur Al Amin	48
21	Nur Cholis	78
22	Rendi Frediansyah P	63
23	Riyan Tri Antoro	30
24	Rizki Ibnul Fatoni	23
25	Silvi Listyana Rahmawati	78
26.	Tri Fannihilma Salsabella	73
27	Tri NurAini Solekhah	80
28	Wahyu Tri Wahono	73
	N= 28	1785

From the table above, could be seen that the highest scores for experiment class is 90; there is only two students who got the highest score. The lowest score for the experiment class is 23; there is one student who have the lowest score. The total of experiment class score is 1785.

4. The Result of Students' Pre Test in Control Group (7B)

The table below showed the score of the pre test of the students not being taught using numbered heads together technique.

Table 4.4 The Score of Students' Pre Test in Control Group

No.	Name	Scores
1	Adhy Prayogo	45
2	Agus Indra EkoSaputra	85
3	Ahmad Ma'warodli	78
4	Alma Nur Aina Atari	78
5	Amilga Binti M	63
6	Andika ayuda pratama	53
7	Anggito Abi Manyu	65
8	Cahaya Mulya	28
9	Fahri Senja Abadi	35
10	Fais Hidayatul Fanani	43
11	Gilang Aditya A	53
12	Hafid Nurkholik	90
13	Harlianti Irma Aprilia	70
14	Kiki Irawan	63
15	Linda Notallia	68
16	Lisa Devi Fitriani	75
17	Muchamad Mufid	75
18	MuH Khoirul Rifai	60
19	Restu Prayogi D	40
20	Ricy Nurvianda Ma'ruf	60
21	RisgaYudha Aafi'i	53
22	Risky Pangestu	50
23	Sekar Arum Pandan	78
24	Siti Zulaikhah	60
25	Teguh Rifa'i	45
26.	Wahyu IkaYuliati	28
27	Zainal Arifin	95
28	Wahyu P. Andica	75
	N=28	1711

The highest score for controlled class is 95; there is one student who got the highest score. The total lowest for the controlled class is 28; there are two

students who have the lowest score. The total of the controlled class score is 1711.

The differentiate result of the experiment class and controlled class is 74.

5. The Result of Students' Post Test in Experimental Group (Variable X)

The table below showed the score of the post test of the students taught using numbered heads together technique.

Table 4.5 The Score of Students' Post Test in Experimental Group

No.	Name	Scores
1	Afidah Nur Aini W	90
2	Agus Ekostianto	90
3	Ahmada RP	85
4	Ahmad Bahrul Muttaqin	68
5	Alfina Rahmawati	85
6	Allan Ahmad Firman	65
7	Aprinda Binti Mahmudah	88
8	Ayu Nanda WidyaPutri	78
9	Bambang Herianto	70
10	Didik Prasetyo	53
11	Erni Istiyarni	65
12	Fania Farika	88
13	Ihsan Yusuf	85
14	IlhamTaufik Kurohman	65
15	Ivan Fadri Santosa	88
16	Lucky luSiana	50
17	Moh Aslan Rifai	80
18	Muhamad Abdul Azis	88
19	Muhamad Saifudin	75
20	Nur Al Amin	55
21	Nur Cholis	88
22	Rendi Frediansyah P	55
23	Riyan Tri Antoro	45
24	Rizki Ibnul Fatoni	85
25	Silvi Listyana Rahmawati	73
26.	Tri Fannihilma Salsabella	83
27	Tri NurAini Solekhah	85
28	Wahyu Tri Wahono	78
	N= 28	2103

From the table above, could be seen that the highest scores for experiment class is 90; there are two students who got the highest score. The lowest score for the experiment class is 45; the is one student who have the lowest score. The total of experiment class score is 2103. So that, could be concluded the post test of the students taught using numbered heads together technique was good.

6. The Result of Students' Post Test in Control Group (Variable Y)

The table below showed the score of the post test of the students not being taught using numbered head together technique.

Table 4.6 The Score of Students' Post Test in Control Group

No.	Name	Scores
1	Adhy Prayogo	55
2	Agus Indra Eko Saputra	63
3	Ahmad Ma'warodli	68
4	Alma NurAina Atari	75
5	Amilga Binti M	80
6	Andika K ayuda pratama	63
7	Anggito Abi Manyu	68
8	Cahaya Mulya	25
9	Fahri Senja Abadi	60
10	Fais Hidayatul Fanani	60
11	Gilang Aditya A	65
12	Hafid Nurkholik	68
13	Harlianti Irma Aprilia	68
14	Kiki Irawan	60
15	Linda Notallia	45
16	Lisa Devi Fitriani	68
17	Muchamad Mufid	73
18	MuH Khoirul Rifai	60
19	Restu Prayogi D	63
20	Ricy Nurvianda Ma'ruf	63
21	RisgaYudhaAafi'i	75

No.	Name	Scores
22	Risky Pangestu	63
23	Sekar Arum Pandan	78
24	Siti Zulaikhah	60
25	Teguh Rifa'i	63
26.	Wahyu Ika Yuliati	48
27	Zainal Arifin	68
28	Wahyu P. Andica	58
	N=28	1763

From the table above, could be seen that the post test of the students in control group that not being taught using numbered heads together technique was varieties. There was 1 student got 80, 1 student got 78, 2 students got 75, 1 student got 73, 6 students got 68, and 5 students got 60. So that, could be concluded the post test students not being taught using numbered head together technique was moderate.

7. The Result of Assumption Test for Parametric Statistic

a. Normality

Normality test was conducted to known whether the data distribution was normal distribution or not.⁸³ For this test, it would be proposed the hypothesis as follow:

Ho: the data was not normal distribution

Ha: the data was normal distribution

⁸³Retno Widyaningrum, Statistik (Ponorogo: STAIN Ponorogo Press, 2009), 206.

Table 4.7 Normality of Data and Calculation of The Students' Post

Test in Experimental Group

X	F	FX	X²	FX²
90	2	180	8100	16200
88	5	440	7744	38720
85	5	425	7225	36125
83	1	83	6889	6889
80	1	80	6400	6400
78	2	156	6084	12168
75	1	75	5625	5625
73	1	73	5329	5329
70	1	70	4900	4900
68	1	68	4624	4624
65	3	195	4225	12675
55	2	110	3025	6050
53	1	53	2809	2809
50	1	50	2500	2500
45	1	45	2025	2025
TOTAL	$\sum F = 28$	$\sum FX = 2103$	$\sum X^2 = 77504$	$\sum FX^2 = 163039$

Calculate the average:

$$M_x = \frac{\sum fx}{N}$$

$$= \frac{2103}{28}$$

$$= 75.10714286$$

Calculate the deviation standard:

$$SD_x = \sqrt{\frac{\sum fx^2}{n} - \left(\frac{\sum fx}{n}\right)^2}$$

$$SD_x = \sqrt{\frac{163039}{28} - \left(\frac{2103}{28}\right)^2}$$

$$SD_x = \sqrt{5822.821429 - (75.10714286)^2}$$

$$SD_x = \sqrt{5822.821429 - 5641.082909}$$

$$SD_x = \sqrt{181.73852}$$

$$SD_x = 13.48104299$$

Table 4.8 The Result of Normality Test for Experimental Group

X	F	Fkb	F/n	Fkb/n	Z	P≤Z	a₂	a₁
1	2	3	4	5	6	7	8	9
90	2	28	0,071	1.000	1.105	0.8643	0.1357	-0.0647
88	5	26	0.179	0.929	0.956	0.8289	0.1001	0.0789
85	5	21	0.179	0.75	0.734	0.7673	-0.0173	<u>0.1617</u>
83	1	16	0.036	0.571	0.586	0.7190	-0.148	-0.112
80	1	15	0.036	0.535	0.363	0.6406	-0.1056	-0.0696
78	2	14	0.071	0.5	0.215	0.5832	-0.0832	-0.0122
75	1	12	0.036	0.429	-0.008	0.5000	-0.071	-0.035

73	1	11	0.036	0.392	-0.156	0.4404	-0.0484	-0.0124
70	1	10	0.036	0.357	-0.379	0.3557	0.0013	0.0347
68	1	9	0.036	0.321	-0.527	0.3015	0.0195	0.0165
65	3	8	0.107	0.286	-0.749	0.2296	0.0564	0.0506
55	2	5	0.071	0.179	-1.492	0.0681	0.1109	-0.0399
53	1	3	0.036	0.107	-1.639	0.0516	0.0554	-0.0194
50	1	2	0.036	0.071	-1.862	0.0314	0.0396	-0.0036
45	1	1	0.036	0.036	-2.233	0.0129	0.0231	0.0129

$D_{(0,05,28)}$ from index is 0.24

H_a was accepted if $a_1 \max \leq D_{Index}$

Because the maximum value of a_1 was 0.1617 (0,162) in which the index was less than the D index, so the decision was to accept H_a , which meant the data was normality distributed.

Table 4.9 Normality of Data and Calculation of The Students' Post Test in Control Group

Y	F	FY	Y ²	FY ²
80	1	80	6400	6400
78	1	78	6084	6084
75	2	150	5625	11240
73	1	73	5329	5329
68	6	408	4624	2774
65	1	65	4225	4225
63	6	378	3969	23814
60	5	300	3600	18000

58	1	58	3364	3364
55	1	55	3025	3025
48	1	48	2304	2304
45	1	45	2025	2025
25	1	25	625	625
TOTAL	$\Sigma F = 28$	$\Sigma FY = 1763$	$\Sigma Y^2 = 51199$	$\Sigma FY^2 = 114189$

Calculate the average:

$$My = \frac{\Sigma fy}{N}$$

$$My = \frac{1763}{28}$$

$$My = 62.96428571$$

Calculate the deviation standard:

$$SD_y = \sqrt{\frac{\Sigma fy^2}{n} - \left(\frac{\Sigma yx}{n}\right)^2}$$

$$SD_y = \sqrt{\frac{114189}{28} - \left(\frac{1763}{28}\right)^2}$$

$$SD_y = \sqrt{4078.178571 - (62.96428571)^2}$$

$$SD_y = \sqrt{4078.178571 - 3964.501276}$$

$$SD_y = \sqrt{113.677295}$$

$$SD_y = 10.6619555$$

Table 4.10 The Result of Normality Test for Control Group

Y	F	Fkb	F/n	Fkb/n	Z	P≤Z	a_2	a_1
1	2	3	4	5	6	7	8	9
80	1	28	0.0357	1.000	1.598	0.9411	0.0559	-0.0202
78	1	27	0.0357	0.964	1.4100	0.9207	0.0435	-0.0078
75	2	26	0.0714	0.929	1.129	0.8686	0.06	0.0114
73	1	24	0.0357	0.857	0.941	0.8264	0.0307	0.005
68	6	23	0.2143	0.821	0.472	0.6808	0.1406	0.0737
65	1	17	0.0357	0.607	0.191	0.5753	0.0318	0.0039
63	6	16	0.2143	0.571	0.003	0.5000	0.0714	0.1429
60	5	10	0.1786	0.357	-0.278	0.3936	-0.0365	0.1421
58	1	5	0.0357	0.179	-0.466	0.3228	-0.1442	-0.1085
55	1	4	0.0357	0.143	-0.747	0.2296	-0.0867	-0.051
48	1	3	0.0357	0.107	-1.404	0.0808	0.0263	0.0094
45	1	2	0.0357	0.071	-1.685	0.0465	0.0249	0.0108
25	1	1	0.0357	0.036	-3.561	0.0002	0.0355	0.0002

$D_{(0,05,26)}$ from index is 0.24

H_a was accepted if $a_1 \max \leq D_{Index}$

Because the maximum value of a_1 was 0.1429 (0.143) in which the index was less than the D index, so the decision was to accept H_a , which meant the data was normality distributed.

b. Homogeneity

Homogeneity test is the variance ratio test between two group or more.⁸⁴

This can be tested by Harley test.

⁸⁴Ibid. 214.

The formula is:

$$F(\max) = \frac{\text{Var max} = SD^2 \max}{\text{Var min} = SD^2 \min}$$

$$F(\max) = \frac{\text{Var max} = 13.48104299^2}{\text{Var min} = 10.6619555^2}$$

$$F(\max) = \frac{\text{Var max} = 181,7385201}{\text{Var min} = 113,6772951}$$

$$F(\max) = 1.5987223122 = 1,59$$

$$D_b = n-1; k$$

$$28-1; 2 = 27; 2$$

H_0 = data is homogenous

H_a = data not homogenous

F_{\max} index is 2,40

So F_{\max} was 1,59 in which the index was less than the F_{\max} index (2.40), so the decision was to accept H_a , which meant the data was homogeny distributed.

C. Data Analysis

1. The Analysis of Student's Post Test of Experimental Group

To obtain data, the researcher uses a vocabulary test to 28 students for experimental group and 28 students for control group, to know the differentiate students' vocabulary achievement at the seventh grade of MTs Ma'arif Balong Academic Year 2014-2015, the researcher applied "t" test formula as stated below.

The first step is calculate the interval and class for make the table distribution:

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

$$K = 1 + 3.322 \log n$$

$$K = 1 + 3.322 \log 28$$

$$K = 1 + (3.322 \times 1.447158031)$$

$$K = 1 + 4.807458979$$

$$K = 5.807458979 \text{ (6)}$$

$$\text{Highest score} = 90$$

$$\text{Lowest score} = 45$$

$$R = H - L + 1$$

$$R = 90 - 45 + 1 = 46$$

$$I = \frac{R}{K} = \frac{46}{6} = 7.6 \text{ (8)}$$

So, from the data statistic above, it is known that the total range is 46, the total of class is 6 and interval is 8

Table 4.11 The Computation of Students' Post Test in Experimental

Group

Score X	F	Fkb	X	x'	fx'	x'²	fx'²
83-90	13	13	86.5	+1	13	1	13
75-82	4	15	78.5	0	0	0	0
67-74	3	11	70.5	-1	-3	1	3
59-66	3	8	62.5	-2	-6	4	12
51-58	3	5	54.5	-3	-9	9	27
43-50	2	2	46.5	-4	-8	16	32
Total	28	-	-		-13		87

- a. Finding Average (Mean) of the variable X

$$M_x = M' + i \left(\frac{\sum f x'}{n1} \right)$$

$$M_x = 78.5 + 8 \left(\frac{-13}{28} \right)$$

$$M_x = 78.5 + 8 (-0.464285714)$$

$$M_x = 78.5 + (-3.714285712)$$

$$M_x = 74.78571429 = 75$$

b. Look for SD_x

$$SD_x = i \sqrt{\frac{\sum f(x_i^2)}{n} - \left(\frac{\sum f x_i}{n} \right)^2}$$

$$SD_x = 8 \sqrt{\frac{87}{28} - \left(\frac{-13}{28} \right)^2}$$

$$SD_x = 8 \sqrt{3.107142857 - (-0.464285714)^2}$$

$$SD_x = 8 \sqrt{3.107142857 - 0.215561224}$$

$$SD_x = 8 \sqrt{2.891581633}$$

$$SD_x = 8 \times 1.700465123$$

$$SD_x = 13.60372098$$

From the calculation above, it is known $M_x = 84.1789$ and $SD_x = 13.60372098$

2. The Analysis of Student's Post Test of Control Group

The first step is calculate the interval and class for make the table distribution:

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

$$K = 1 + 3.322 \log n$$

$$K = 1 + 3.322 \log 28$$

$$K = 1 + (3.322 \times 1.447158031)$$

$$K = 1 + 4.807458979$$

$$K = 5.807458979 \text{ (6)}$$

$$H = 80 \quad L = 25$$

$$R = H - L + 1$$

$$R = 80 - 25 + 1$$

$$R = 56$$

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

$$I = \frac{56}{6} = 9.33 = 10$$

So, from the data statistic above, it is known that the total range is 56, the total of class is 6 and interval is 10.

Table 4.12 The Computation of Students Post Test Control Group

Score Y	F	fk	Y	y'	fy'	y' ²	fy' ²
71-80	5	28	75.5	+2	10	4	20
61-70	13	23	65.5	+1	13	1	13
51-60	7	10	55.5	0	0	0	7
41-50	2	3	45.5	-1	-2	1	2
31-40	-	1	35.5	-2	0	4	0
21-30	1	0	25.5	-3	-3	9	9
Total	28						51

a. Finding Average (Mean) of the variable Y

$$M_Y = M' + i \left(\frac{\sum fY'}{n1} \right)$$

$$M_Y = 55 + 10 \left(\frac{18}{28} \right)$$

$$M_Y = 55 + 10 (0.642857142)$$

$$M_Y = 55 + 6.42857142$$

$$M_Y = 61.42857142$$

b. Look for SD_y

$$SD_y = i \sqrt{\frac{\sum f(y'^2)}{n} - \left(\frac{\sum f \cdot y'}{n} \right)^2}$$

$$SD_y = i \sqrt{\frac{51}{28} - \left(\frac{18}{28} \right)^2}$$

$$SD_y = 10 \sqrt{1.821428571 - (0.642857142)^2}$$

$$SD_y = 10 \sqrt{1.821428571 - 0.413265306}$$

$$SD_y = 10 \sqrt{1.408163265}$$

$$SD_y = 10 \times 1.86660552$$

$$SD_y = 11.86660552$$

From the calculation above, it is known $M_y = 61.42857142$ and $SD_y = 11.86660552$

3. Testing Hypothesis (t_{test})

From both table above, the researcher compare the mean score of students' vocabulary achievement taught using numbered heads together technique (X) and the students' vocabulary achievement not being taught using numbered heads together technique (Y) with this steps:

- a. Finding Average (Mean) of the variable X and Y

$$M_x = M' + i \left(\frac{\sum fx'}{n1} \right)$$

$$M_x = 78.5 + 8 \left(\frac{-13}{28} \right)$$

$$M_x = 78.5 + 8x (-0.464285714)$$

$$M_x = 78.5 + (-3,714285712)$$

$$M_x = 74.78571429$$

$$M_Y = M' + i \left(\frac{\sum fY'}{n1} \right)$$

$$M_Y = 55 + 10 \left(\frac{18}{28} \right)$$

$$M_Y = 55 + 10 (0.642857142)$$

$$M_Y = 55 + 6.42857142$$

$$M_Y = 61.42857142$$

b. Look for SD_x and SD_y

$$SD_x = i \sqrt{\frac{\sum f(x'^2)}{n} - \left(\frac{\sum f \cdot x'}{n}\right)^2}$$

$$SD_x = 8 \sqrt{\frac{87}{28} - \left(\frac{-13}{28}\right)^2}$$

$$SD_x = 8 \sqrt{3.107142857 - (-0.464285714)^2}$$

$$SD_x = 8 \sqrt{3.107142857 - 0.215561224}$$

$$SD_x = 8 \sqrt{2.891581633}$$

$$SD_x = 8 \times 1.700465123$$

$$SD_x = 13.60372098$$

$$SD_y = i \sqrt{\frac{\sum f(y'^2)}{n} - \left(\frac{\sum f \cdot y'}{n}\right)^2}$$

$$SD_y = i \sqrt{\frac{51}{28} - \left(\frac{18}{28}\right)^2}$$

$$SD_y = 10 \sqrt{1.821428571 - (0.642857142)^2}$$

$$SD_y = 10 \sqrt{1.821428571 - 0.413265306}$$

$$SD_y = 10 \sqrt{1.408163265}$$

$$SD_y = 10 \times 1.86660552$$

$$SD_y = 11.86660552$$

c. Determining standard error mean variable X and Y

$$SE_{Mx} = \frac{SDx}{\sqrt{nx-1}}$$

$$SE_{Mx} = \frac{13.60372098}{\sqrt{28-1}}$$

$$SE_{Mx} = \frac{13.60372098}{\sqrt{27}}$$

$$SE_{Mx} = \frac{13.60372098}{5.196152423}$$

$$SE_{Mx} = 2.618037323$$

$$SE_{My} = \frac{SDy}{\sqrt{n^2-1}}$$

$$SE_{My} = \frac{11.86660552}{\sqrt{28-1}}$$

$$SE_{My} = \frac{11.86660552}{\sqrt{27}}$$

$$SE_{My} = \frac{11.86660552}{5.196152423}$$

$$SE_{My} = 2.283729297$$

- d. Difference standard error score of the means variable X and variable Y

$$SE_{Mx-My} = \sqrt{SE_{Mx}^2 + SE_{My}^2}$$

$$SE_{Mx-My} = \sqrt{2.618037323^2 + 2.283729297^2}$$

$$SE_{Mx-My} = \sqrt{6.854119425 + 5.215419502}$$

$$SE_{Mx-My} = \sqrt{12.06953893}$$

$$SE_{Mx-My} = 3.474124196$$

- e. to score

$$t_o = \frac{MX - MY}{SE_{mx - my}}$$

$$t_o = \frac{74.78571429 - 61.42857142}{3.474124196}$$

$$t_o = \frac{13.35714287}{3.474124196}$$

$$t_o = 3.844751113 / 3.85$$

D. Discussion

From the computation above, it was shown that the difference coefficient of students taught using numbered head together technique and the students not being taught using numbered head together is 3,85 it was used to find out whether the difference coefficient was a significant coefficient or not, and furthermore it could be used as a basic to generate the population.

Hypothesis test (t_o) at 3.85 from the computation above would be compared to the "t" index (t_t) with the condition stated below:

- 1) If the $t_o \geq t_t H_a$ was accepted. It meant that the mean difference of both variables was a significant difference.
- 2) If the $t_o < t_t H_a$ was rejected. It mean that there was no mean difference of those variables. It also meant, the mean difference of those variables was not a significant difference, but the difference that was happened by the accident as a result from error sampling.

To determine the t_o was by checking db and consulted with the t_t score:

$$Db = (N1 - N2) - 2$$

$$= (28+28)-2$$

$$= 56-2$$

$$= 54$$

From the db score, the researcher could know that in 5% significance level $t_o = 3,85$ and $t_t = 2,01$. Based on this statement, the researcher interprets that there was a significant difference between the students taught using numbered heads together technique and the students not being taught using numbered heads together technique, it implies that the students taught using numbered heads together technique achieve a better score in vocabulary achievement.

So Alternative hypothesis (H_a) that states that the students taught using numbered heads together technique will achieve a better score in vocabulary achievement was accepted.

From the data above, the researcher could conclude that there was a significant difference in vocabulary achievement between the students taught using numbered heads together technique and the students not being taught using numbered heads together technique. In other words, numbered heads together technique was effective in improving students' vocabulary achievement at the seventh grade of MTs Ma'arif Balong in academic year 2014/2015.

CHAPTER V

CLOSING

A. Conclusion

Based on the data described previously, the researcher draws the conclusion that there is significant difference of using numbered heads together technique in teaching vocabulary on the seventh grade students of MTs Ma'arif Balong in academic year 2014/2015. The students who are taught using numbered heads together technique have a better score than those who are not taught using numbered heads together technique. It can be proofed by the analysis of the students' score.

The result of this research in this study is the mean score of the post-test from the experimental group is higher (75,11) than post-test from controlled group (62,96). it has been found that the comparison value (t_o) between students' vocabulary achievement who are taught using numbered heads together technique and who are not is 3,84. This is higher than " t_t " value in the table, which is $t_t = 2.01$ at the level of significant 5% with $db=54$. So, H_a is accepted.

In the other word, numbered heads together technique has effect in teaching vocabulary to improve students' vocabulary achievement at the seventh grade of MTs Ma'arif Balong in academic year 2014/2015.

B. Suggestion

Considering the conclusion above, the researcher would like to suggest:

1. For the school

The school is suggested to improve the system and facilities for a better condition in teaching and learning especially for students. So, they will maximize their skill for a good achievement

2. For the English teacher

Teachers should be creative to choose the best technique to apply in learning process in order to make students interested in attending the lesson; the teachers should present the language in an enjoyable, relaxed and understandable; the teacher is not only as the information giver but also as a facilitator. They have to give students guidance and direction how to competence a text; the teachers should teach using appropriate technique to teach the students and make variation of technique in every meeting.

3. For the students

The students should be obligated to bring dictionary in every English class; The students are hoped to be active in learning process and they are hoped not be shy in acting out their role; It is better for students to keep sharing each other, so when the students learning together, they will take and give understanding for wide overview.

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(Picture 1)
Students work in group
group



(Picture 2)
Students work in
group



Picture 3)
The student writes the answer on the whiteboard



(Picture 4)
Students' post test



Appendix 1

INSTRUMENT PRE-TEST AND POST TEST (After Revision)

Choose the correct answer by crossing the A, B, C or D!

Read the text carefully!

Rika Bachtiar and Brothers

My name is Rika Bachtiar. I was born on January 14, 1990 in Malang. I have a brother and a sister. Their names are Andi and Dona. Andi is seventeen years old and Dona is five years old. Andi's hobby is playing football. He practices twice a week. Andy is lazy boy, he always gets up late. But, he is a gorgeous boy; he has a lot of fans in school. Dona's hobby is reading a book and writing a story. She has a lot of books in her rooms. Dona is clever student. She wins a writing novel competition in Jakarta. She is using eye glasses. She reads a book every day. We go to school by bicycle. We are a harmonious family.

I am pretty tall, about 158 centimetres. I have short and curly hair. I have white skin. I am a diligent student. My hobby is cooking. I cook in my beautiful kitchen. I clean my kitchen everyday. I can cook simple food, like soup, noodles, fried rice, fried chicken and some others. I go to market every Sunday with my mother. We go to market on foot. I need some tools when cooking. For example, frying pan for frying a meat, pan for boiling water, knife for cutting meat, and spatula for flipping the fish.

(Adapted from Bates, N. 2005:12)

1. Andy's hobby is playing football.

The opposite of playing is.....

- | | |
|-------------|------------|
| a. Relaxing | c. Working |
| b. Sleeping | d. Writing |

2. A : What are you doing?
B : I am..... a story. I want to join Writing Competition
- a. writing
 - b. speaking
 - c. reading
 - d. listening
3. It has a stir consisting of two handlebars. It has two wheels. Rika and brothers use it to go to school. What is it?
- a. Bicycle
 - b. Pedicab
 - c. Motorcycle
 - d. Otocycle
4. He is a gorgeous boy.
The closest meaning of gorgeous is.....
- a. Beautiful
 - b. Tall
 - c. Handsome
 - d. Masculine
5. Rika is a diligent girl.
The opposite of diligent is.....
- a. Stupid
 - b. Dull
 - c. Clever
 - d. Lazy
6. Rika is..... in her beautiful kitchen.
- a. frying
 - b. cutting
 - c. cooking
 - d. boiling
7. The shape of this food is long and curly. Need water to boil it. It is easy to make. What is it?
- a. Fried rice
 - b. Noodles
 - c. Soup
 - d. Fried chicken
8. A : Give me a, please. I want to fry the chicken.
B : OK
- a. pan
 - b. bowl
 - c. frying pan
 - d. Steamer
9. This tool is for cutting a meat. It is sharp. We use it in the kitchen. What tool is that?
- a. Cutting board
 - b. Knife
 - c. Scissors
 - d. Sickle

10. What is the function of the tool?



- a. To boil water
- b. To steam rice
- c. To fry a meat
- d. To grill a fish

11. This tool consists of two glasses. It has a frame. Grandfather uses it to read clearly. What tool is it?

- a. Telescope
- b. Cap
- c. Contact lens
- d. Eye glasses

12. Rika does not like tidy kitchen. What should she do?

- a. Wash it
- b. Clean it
- c. Rub it
- d. Wipe it

13. They are harmonious family.

The similar meaning of harmonious.....

- a. Happy
- b. Sad
- c. Complete
- d. Smile

14. I use the tool in the kitchen. When I am frying a fish I need the tool. What tool is that?

- a. Fork
- b. Spoon
- c. Ladle
- d. Spatula

15. A : Where will you go?

B : I will go to Dona's house to study English. She isShe got the winner for English competition.

- a. Stupid
- b. lazy
- c. clever
- d. smart

16. It is a building. There are many rooms. There are teachers and students. What building is it?

- a. House
- b. School
- c. Supermarket
- d. A company

17. A mother does it every morning and afternoon. She cut some fish, carrot, and cabbage. She uses a frying pan to fry the fish. She use pan to boil water. What is she doing?
- a. Cooking
 - b. Frying
 - c. Cutting
 - d. Boiling
18. I have short and curly hair.
The opposite of curly.....
- a. Wavy
 - b. Frizzy
 - c. Bald
 - d. Straight
19. I need stove, frying pan, and oil to fry the food. Flour and seasoning to make it delicious. I also need chicken to make it. What food is that?
- a. Fried rice
 - b. Fried chicken
 - c. Fried mushroom
 - d. Fried tempe
20. I cook in my beautiful kitchen.
The closest meaning of beautiful is.....
- a. Nice
 - b. Handsome
 - c. Gorgeous
 - d. Pretty
21. Joko is a..... student. He always gets good score
- a. Smart
 - b. lazy
 - c. stupid
 - d. diligent
22. Justin Bieber is a..... singer. He has a lot of fans.
- a. ugly
 - b. diligent
 - c. handsome
 - d. straight
23. They are..... They want to eat
- a. hungry
 - b. thirsty
 - c. tired
 - d. angry
24. Do not be, be happy
- a. sad
 - b. dry
 - c. naughty
 - d. Wet

25. My mother is..... She always goes to school early morning. She teaches many students in the school. What is my father?
- a. a teacher
 - b. a gardener
 - c. a secretary
 - d. s student
26. All members of Seven Icons are very beautiful. The closest meaning of “beautiful” is.....
- a. Pretty
 - b. Lovely
 - c. Handsome
 - d. Good
27. Agnes, Ridwan and Dimas are not..... English today
- a. joking
 - b. reading
 - c. studying
 - d. watching
28. Yosi goes to school. He wears a.....
- a. kabaya
 - b. t-Shirt
 - c. raincoat
 - d uniform
29. It is very cold. So I have to wear my.....
- a. trousers
 - b. pyjamas
 - c. jacket
 - d. singlet
30. Fika always her teeth
- a. brushes
 - b. washes
 - c. takes a bath
 - d. holds

Appendix 5

Transcript of Documentation

Type : Documentation

Date : 16th February 2015

Time : 10.20 A.M -11.00 A.M

Transcript of Documentation
<p style="text-align: center;">The History of MTs Ma'arif Balong</p> <p>MTs Ma'arif Balong is one of the Islamic Junior High School in the Balong district. It is located in Jalen Village Balong district Ponorogo. As the Islamic Junior High School which was third build in the Balong Area, MTs Ma'arif Balong has many students and not least with other Islamic Junior High school in the region Ponorogo.</p> <p>MTs Ma'arif Balong established in 1995. MTs Ma'arif balong have been accreditation on 30th October 2010 with the status accreditation is B, based on SK Badan Akreditasi Sekolah/Madrasah (BAN-S/M) Number: 073/BAP-SM/TU/X/2010.</p>

Appendix 6

Transcript of Documentation

Type : Documentation

Date : 16th February 2015

Time : 10.20 A.M -11.00 A.M

Transcript of Documentation
<p style="text-align: center;">Visi, Mission And The Goal Of MTs Ma'arif Balong</p> <p>A. VISI</p> <p>Faith, scholarly, performance, and good characters.</p> <p>B. MISSION</p> <ol style="list-style-type: none">1. Providing religious education and carried Ahlusunnah wal Jama'ah2. Forming learned generation that healthy physical and spiritual3. Giving skill for live in society, nation, and country. <p>C. GOAL</p> <p>Generally the goal of MTs Ma'arif Balong is provide education that:</p> <ol style="list-style-type: none">a. Being moslem that believe and fear to God Allah SWT, have a good attitude, comprehend and do the religion's precept.b. Becoming citizens that good and responsible to the prosperity of society and nation.c. Being human that having complete personality, confident, health physical and spiritual.d. Mastering science and technology and finally can follow the developing of globalization era.e. Have competence and skills to do daily activity to getting the balance of life.

Appendix 7

Transcript of Documentation

Type : Documentation

Date : 16th February 2015

Time : 10.20 A.M -11.00 A.M

Transcript of Documentation

The Organization Structure of MTs Ma'arif Balong

Based on SK Madrasah Number 001/SK/MTs.Mrf/VII/2014 date 21th July 2014, the arrangement organization structure of MTs Ma'arif Balong Ponorogo is:

Headmaster : Muhammad Jalal Suyuti, S.Ag

Deputy of Public Relation : Drs. Purwono

Deputy of Curriculum : Pardi, S.Pd.I

Deputy of Infrastructure : Hasyim As'ari, S.Pd.I

Deputy of Students : 1. Munir Farohi
2. Purwanto, S.Pd.SD

Head of Library : Dra. Yuniasri

Head of Laboratory : Lina Rahmawati, S.Si

Head of Computer Lab : Drs. Mohammad Junaidi

Teacher of Class:

1. VII^A : Solikin, S.Pd
2. VII^B : Edy Sutrisni, S.Kom
3. VII^C : Siti Nurul Rohmah, S.Ag
4. VIII^A : Agustin Tri Windiani, S.Pd
5. VIII^B : Sumiati, S.Pd

6. VIII^C : Lilil Herlinawati, S.Pd

7. XI^A : Siti Umi Harnik, S.Ag

8. IX^B : Budianto, S.Pd

9. IX^C : Joko Priyatno, S.Pd

Treasurer of School : Liyep Wijayanti

Head of Administration : Moh. Choirul Fatoni

Staff of Administration : Langgeng Hartono

Appendix 8

LESSON PLAN

Subject : English

Level / Semester : VII / 2

Language skill : Vocabulary (Reading)

Language sub skill : Descriptive Text

Topic : The description of people, things and animals

Time Allocation : 2 x 40 minutes (**Meeting 1**)

A. Standard Competence

3. Memahami makna teks tulis fungsional dan esai pendek sangat sederhana berbentuk descriptive dan procedure yang berkaitan dengan lingkungan terdekat

B. Basic Competence

- 3.1 Merespon makna yang terdapat dalam teks tulis fungsional pendek sangat sederhana secara akurat, lancar dan berterima yang berkaitan dengan lingkungan terdekat

C. Indicators

1. Cognitive
 - a. Product
 1. Identifying the large vocabulary in the descriptive text
 - b. Process
 1. Recalling the large vocabulary in the descriptive text
 2. Comprehending the large vocabulary in the descriptive text
2. Affective
 2. Showing the commitment to participate in the group work.
 3. Showing respect to others opinion in the group work.
 4. Showing the hard effort in doing the group work.
3. Psychomotor
 1. Pasting the random words in the descriptive text

D. Materials

1. The descriptive text about “My Bedroom”
2. The large vocabulary consists of verbs, nouns, and adjectives

E. Teaching Learning Strategy

Approach : Cooperative Learning

Technique : Numbered Heads Together (Experimental)
Memorizing (Control Class)

F. Teaching and Learning Activities

NO	Experimental Group		Control Group	Time
I	SET INDUCTION			
	1.1. Greeting Greeting to the students 1.2. Review 1.3. Apperception - Motivation Showing pictures - Leading questions 1.4. Stating objectives	1' 2' 4' 2'	1.1. Greeting Greeting to the students 1.2. Review 1.3. Apperception - Motivation Showing pictures - Leading questions 1.4. Stating objectives	1' 2' 4' 2'
II	MAIN ACTIVITIES			
	2.1. Asking the students to mention the vocabularies based on the text given 2.2. Showing some pictures about adjectives, nouns, and verbs and also the antonyms based on the text. 2.3. Asking the students' difficulties	10' 3' 2'	2.1. Asking the students to mention the vocabularies based on the text given 2.2. Showing some pictures about adjectives, nouns, and verbs and also the antonyms based on the text. 2.3. Asking the students' difficulties	5' 3' 1'

	2.4. Explaining the rules of the Numbered Heads Technique	3'	2.4. Asking the students to find the difficult words in the dictionary	5'
	2.5. Grouping the students	2'	2.5. Asking the student to remind the words	18'
	2.6. Giving each member in a team a number from 1 up to 4	2'	2.6. Asking the students to memorize the words in front of the class	20'
	2.7. Distributing the task	1'	2.7. Asking the students to do the tasks	15'
	2.8. Asking the students to put heads together (discuss together)	15'	2.8. Discussing the answer	15'
	2.9. Cross checking the answer by calling the number of the students randomly	15'		
III	CLOSURE			
	3.1. Asking the students' difficulties	1'	3.1. Asking the students' difficulties	1'
	3.2. Drawing the conclusion with the students	2'	3.2. Drawing the conclusion with the students	2'

3.3. Evaluating the students by giving questions orally	2'	3.3. Evaluating the students by giving questions orally	2'
3.4. Giving homework to the students	1'	3.4. Giving homework to the students	1'
3.5. Parting	1'	3.5. Parting	1'

G. Media and Sources

4. Media :

- Laptop
- Viewer
- Descriptive text
- Cartoon
- Number

5. Sources :

- Bima, Bachtiar and Dwi, Yuniarti. 2010. Bahasa Inggris untuk SMP/MTs. Klaten. PT. Intan Pariwara
- Cooper, J.M. 1997. Classroom Teaching Skills. Virginia. University of Virginia
- (<http://descriptivetext83.blogspot.com/2009/08/debby-putri.html>)
- www.sekolahoke.com

H. Evaluation

Achievement Indicators	Assessment technique	The form of the instrument	The example of the instrument
------------------------	----------------------	----------------------------	-------------------------------

1. Mention the vocabulary around them		Oral test	2. Mention the vocabulary you can find in the class!
2. Identify the large vocabulary around them			3. Decide the verbs, adjectives and noun around you!

Mengetahui,
Guru Mata Pelajaran

Ponorogo , Maret 2015

Nama Mahasiswa,

Sumiati, S.Pd

Fitriyani Duwi Fathur Rohmah

NIM 210911019

INSTRUCTIONAL MATERIALS

Subject : English

Level / Semester : VII / 2

Lang. Comp / Skill : Vocabulary (Reading)

Language sub skill : Descriptive Text

Topic : The description of people, things and animals

Time Allocation : 2 x 40 minutes

Answer the questions:

1. Which one is taller? (Contextual)

2. Which one is fatter? (Contextual)
3. What am I doing? (Contextual)
4. What is he doing? (Contextual)

Materials

My Bedroom



My bedroom is favourite place in my house. It's not big but comfortable enough. The size is only 2x3 m. There are many types of furnitures inside it such as bed, cupboard and table. On the bed there are 2 pillows, a bolster, and a blanket. The cupboard is used to keep my clothes. I also stick a beautiful picture on the wall. It's a picture of Tari Pendet from Bali. I bought it when I was still a junior high school student. Beside a picture I also hang a mirror. My bedroom looks fresh and cool. The wall paint is white. It makes me like sleep in the cloudy palace. I love my bedroom, I can write my novel there, because of that I clean my bedroom every day.

(Adapted from Fadli Eha in <http://www.sekolahoke.com/>)

1. Verb



a.

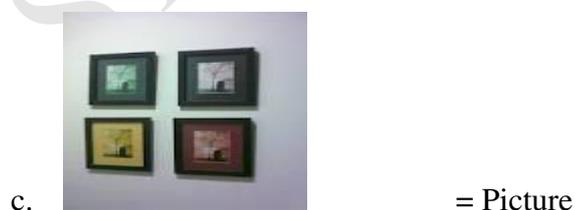
= Write



2. Adjective

- a. Big : Besar
- b. Beautiful : Cantik, indah
- c. Fresh : Sejuk
- d. Comfortable : Nyaman

3. Noun



4. Pronoun

- a My

- What is the opposite of?



Weak

X



Strong



Fat

X



Thin



Run

X



Walk

Fill in the blank space with the appropriate words in the bracket!

Hello my name is Septian. I am (1.....) and (2.....). I have (3.....) hair. My friends say that I am funny. I like 4(.....). My favourite foods are (5.....), noodle, fried rice, and many others. The other boy in the (6.....)is Agus. He is very (7.....) like skeleton and he is very (8.....). He also wears (9.....). His hobby is (10.....). He has many books. We call him “Mr. Professor”. The girl who has (11.....) and (12.....)hair is Sanny. See, she has thick (13.....). She likes English. She (14.....)English with her family every day. She has slanted eyes. She is from Korea. She (15.....) a t-shirt every day. Ida is tall and slim girl. She has curly and long hair. She has many collections of (16.....). She has her own (17.....)for her shoes. The last one is Jennifer. She is a new student from Australia. She is not so fat. Her hair is short and (18.....). What I like is her nose. She has (19.....)-nose. Her hobby is (20.....). She (21.....)her diary book every day. She wants to be a novelist.

(Adopted from Bima Bachtiar and Yuniarti Dw. 2010. p.14)

- | | | |
|------------|---------------|----------|
| a. Writing | k. Straight | u. Short |
| b. Shoes | l. Blond | |
| c. wears | m. Pointed | |
| d. Reading | n. Hair | |
| e. Thin | o. Speaks | |
| f. Fat | p. Donut | |
| g. curly | q. Spectacles | |
| h. tall | r. Brings | |
| i. long | s. Eating | |
| j. rack | t. Pictures | |

Affective Skill Assessment

Student's name:.....

Date:.....

Characteristics behaviour	1	2	3	4	5
Showing the comitment of being participate in doing the group work.					
Showing the respecting behavior to the other opinion in doing group work					
Showing the hard effort in doing the group work.					

Social Skill	1	2	3	4	5
Group work skill					
Sharing opinion skill					
Skill of respecting the other opinion					
Skill of convincing the other person					

STAINPONOROGO

Appendix 9

Interview Transcript

Type : Documentation

Date : 16th February 2015

Time : 10.20 A.M -11.00 A.M

NO	QUESTION	ANSWER
1	What curriculum do you apply in teaching English?	KTSP
2	How many times do you teach vocabulary in a week	2 times
3	What techniques do you use in teaching vocabulary?	Memorizing
4	How do you teach vocabulary by using your technique?	The teacher writes the vocabulary of the material and ask the students to remind it.
5	How effective the teaching technique on vocabulary achievement do you usually use so far?	The student remind the vocabulary, but they feel bored during the process, and finally the students only have a few vocabulary
6	Have you ever used Numbered Heads Together technique in teaching vocabulary?	No, I have not

Appendix 11

The scores of pre-test and post-test of the students in experiment group

No	Name	Pre-test Score	Post-test Score
1	Afidah NurAini W	90	90
2	Agus Ekostianto	85	90
3	Ahmada RP	73	85
4	Ahmad Bahrul Muttaqin	68	68
5	Alfina Rahmawati	90	85
6	Allan Ahmad Firman	43	65
7	Aprinda Binti Mahmudah	68	88
8	Ayu Nanda Widya Putri	65	78
9	Bambang Herianto	63	70
10	Didik Prasetyo	43	53
11	Erni Istiyarni	58	65
12	Fania Farika	58	88
13	Ihsan Yusuf	28	85
14	Ilham Taufik Kurohman	63	65
15	Ivan Fadri Santosa	73	88
16	Lucky luSiana	40	50
17	Moh Aslan Rifai	73	80
18	Muhamad Abdul Azis	85	88
19	Muhamad Saifudin	73	75
20	Nur Al Amin	48	55
21	Nur Cholis	78	88
22	Rendi Frediansyah P	63	55
23	Riyan Tri Antoro	30	45
24	Rizki Ibnul Fatoni	23	85
25	Silvi Listyana Rahmawati	78	73
26.	Tri Fannihilma Salsabella	73	83
27	Tri NurAini Solekhah	80	85
28	Wahyu Tri Wahono	73	78

Appendix 12

The scores of pre-test and post-test of the students in control group

No	Name	Pre-test Score	Post-test Score
1	Adhy Prayogo	45	55
2	Agus Indra EkoSaputra	85	63
3	Ahmad Ma'warodli	78	68

4	Alma Nur Aina Atari	78	75
5	Amilga Binti M	63	80
6	Andika ayuda pratama	53	63
7	Anggito Abi Manyu	65	68
8	Cahaya Mulya	28	25
9	Fahri Senja Abadi	35	60
10	Fais Hidayatul Fanani	43	60
11	Gilang Aditya A	53	65
12	Hafid Nurkholik	90	68
13	Harlianti Irma Aprilia	70	68
14	Kiki Irawan	63	60
15	Linda Notallia	68	45
16	Lisa Devi Fitriani	75	68
17	Muchamad Mufid	75	73
18	MuH Khoirul Rifai	60	60
19	Restu Prayogi D	40	63
20	Ricy Nurvianda Ma'ruf	60	63
21	RisgaYudha Aafi'i	53	75
22	Risky Pangestu	50	63
23	Sekar Arum Pandan	78	78
24	Siti Zulaikhah	60	60
25	Teguh Rifa'i	45	63
26.	Wahyu IkaYuliati	28	48
27	Zainal Arifin	95	68
28	Wahyu P. Andica	75	58

Appendix 13

Table of "t" test

$$M_x = M' + i \left(\frac{\sum fx'}{n1} \right)$$

$$M_x = 78.5 + 8 \left(\frac{-13}{28} \right)$$

$$M_x = 78.5 + 8x (-0.464285714)$$

$$M_x = 78.5 + (-3,714285712)$$

$$M_x = 74.78571429$$

$$M_y = M' + i \left(\frac{\sum fY'}{n1} \right)$$

$$M_y = 55 + 10 \left(\frac{18}{28} \right)$$

$$M_y = 55 + 10 (0.642857142)$$

$$M_y = 55 + 6.42857142$$

$$M_y = 61.42857142$$

STAINPONOROGO

CURRICULUM VITAE



The writer is **Fitriyani Duwi Fathur Rohmah** that was born on January 5th 1992 in Ponorogo, East Java province. She is the second child from of two siblings of Mr Burhanuddin and Mrs Siti Asiyah. She graduated from Elementary School on 2004 at SDN Singkil Balong, Ponorogo regency of East Java.

After graduated from Elementary School, she continued her study in Junior High School at SMPN 1 Balong and graduated at 2007. Then she continued to study in Islmaic Senior High School at MA Darul Istiqomah and graduted in 2011.

After she finished her study in Senior High School, she decided to continue her study at STAIN Ponorogoand took an English Education program. While studying, she also took side job as a private teacher in English course. All activities she did are aimed to develop her ability, especially in English skill to get better achievement and also experiences.