THE EFFECTIVENESS OF MNEMONIC TECHNIQUE TO TEACH VOCABULARY VIEWED FROM STUDENTS' CREATIVITY

(An Experimental Study in the Second Grade Students of SDIT Salsabilla Baiturrahman Prambanan in the Academic Year 2012/2013)

A Thesis

By

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Submitted to Graduate School of Sebelas Maret University as a Partial Fulfillment to Obtain the Graduate Degree in English Education

ENGLISH EDUCATION DEPARTMENT
GRADUATE SCHOOL
SEBELAS MARET UNIVERSITY
SURAKARTA
2013

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(An Experimental Research in the Second Grade Students of SDIT SABAR Prambanan in the Academic Year of 2012 / 2013

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MOTTO

Khoirunnas Anfauhumlinnas

*The best person is someone who is most useful to others*

*(Hadist Bukhori Muslim)*
DEDICATION

This research paper is dedicated to:

Her beloved parents
Her beloved sister
ABSTRACT


The objectives of the research is to identify: (1) Whether Mnemonic technique is more effective than Direct Instruction in teaching vocabulary for the second grade students of SDIT Salsabilla Baiturrahman Prambanan in the academic year of 2012/2013; (2) Whether the students who have high creativity have better vocabulary mastery than those who have low creativity; and (3) Whether there is an interaction between teaching techniques and creativity in teaching vocabulary for the second grade students of SDIT Salsabilla Baiturrahman Prambanan in the academic year of 2012/2013.

This research method was experimental. This research was carried out at SDIT Salsabilla Baiturrahman Prambanan in the academic year of 2012/2013. The population was the second grade student. In this research, the researcher used total sampling. The researcher took class II.A as experimental class and class II.B as control class. Each class was divided into two groups (the students having high and low creativity). The research instruments consist of students’ creativity test and students’vocabulary test. The creativity test was readable and vocabulary test was valid and reliable after they were tried out. The data were the result of vocabulary test and analyzed by multifactor analysis of variance 2 x 2 (ANOVA). Then, it was analyzed by using Tukey test.

Based on the result of data analysis, the research findings are: (1) Mnemonic technique is more effective than Direct Instruction to teach vocabulary for the second grade students of elementary school; (2) The vocabulary mastery of the students having high creativity is better than that of those having low creativity; and (3) There is an interaction between teaching techniques and students’ creativity.

The research result of this study implies that: (1) The English teachers are suggested to use Mnemonic technique to teach vocabulary; (2) Students could use Mnemonic to improve their vocabulary mastery as it can help them to produce the newly learned words effectively; and (3) The future researchers are also able to conduct research of the same kind with different population characteristic and different variables.

Key words: Mnemonic technique, Direct Instruction, creativity, elementary students, and experimental study.


PRONOUNCEMENT

This is to certify that I myself write this thesis entitled “The Effectiveness of Mnemonic to Teach Vocabulary Viewed From Students’ Creativity (An Experimental Research in the Second Grade Students of SDIT Salsabilla Baiturrahman Prambanan in the Academic Year of 2012 / 2013). It is not a plagiarism or made by others. Anything related to others’ works is written in quotation, the sources of which are listed on the list of references.

If then the pronunciation proves wrong, I am ready to accept any academic punishment, including the withdrawal or cancellation of my academic degree.

Surakarta, January 17th 2013

Dhian Marita Sari
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ACKNOWLEDGMENT

Alhamdulillah, praise be to Allah SWT, the Lord of universe, for the blessing that the writer is able to finish this thesis. This thesis cannot be finished without other people’s help. Therefore, in this opportunity the writer would like to express her deepest gratitude and appreciation to:

1. The Director of Graduate School of Sebelas Maret University who has given permission to the writer to write this thesis.
2. The head of English Education Department Graduate School who has given support and guidance to the writer for writing this thesis.
3. The Secretary of English Department, for the great ideas and inspiration in lives.
4. Dr. Ngadiso, M.Pd., as the first consultant, for having suffered to revise this thesis until finalizing this thesis.
5. Drs. Martono, M.A., as the second consultants, for his suggestion; advice; and guidance.
6. The Headmaster of SDIT Salsabilla Baiturrahman Prambanan and all the teachers for their kindness to allow the writer to conduct this research.
7. All the second grade students of SDIT Salsabilla Baiturrahman Prambanan in the academic year of 2012/2013, thanks for welcoming her warmly to conduct a research in class.

The beneficial criticism and suggestion are welcomed for better improvement. Therefore, constructive suggestions are needed for the progress of the next research. May this thesis be useful to increase the quality of education.

Surakarta, January 17th 2013

Dhian Marita Sari
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CHAPTER I

INTRODUCTION

A. Background of the Study

Vocabulary is central and very important in language learning. It means that by mastering vocabulary, the learners will produce so many sentences either in spoken or written. They can also communicate with other people fluently and express their opinion or ideas conveniently. It is almost impossible to understand a written text without understanding vocabulary. Not being able to understand the vocabulary that is needed in listening text is one of the most frustrating experiences for language learners. Oral weakness, speaking practice is inconvenient to done and it can be difficult to speak a fluent sentence because of lack of useful vocabularies (Scott, 2002: 13).

Moreover, Students will be more enthusiastic to find answer from reading text without finding any obstacles to determine the meaning of words. Automatically, students who have large vocabularies can understand new ideas and concepts more quickly than students with limited vocabularies. It can be stated that vocabulary is important because it will influence the success of learning English especially in achieving of English skills.

Gradually, Extending vocabulary is a crucial part for reaching success in continuing studies. Research done by the Tapestry of English Language Teaching and learning (2007) states that the target mastery of vocabulary in Junior High School is 1000 words and for Senior High School is 2500 words. It means that

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preparing learners since they are in early age especially in elementary school is mostly needed and must be done to fulfill those targets.

Teaching vocabulary at elementary school students focuses and concentrates not only on the meaning but also on pronunciation, spelling, and the usage of words. Because English is a foreign language, almost all the students make mistakes in pronouncing words, for example for the word “uncle”, they usually pronounce it based on the letter written. On the other hand, good spelling and using the words are the other fundamental aspects of vocabulary that should also be mastered by learners. The students’ spelling mismatches are also found in teaching-learning process, for example for the words that contain of silent letter such as *climbing, listening, etc*. Moreover, because the words are less practiced, students do not have much opportunity to use it in real context.

Teaching vocabulary for young learners cannot be just by writing letters and words on the board in order to make the students able to read and know the meaning of the words. They have to learn a lot of words before they learn to read and write. In ways to keep children motivated to learn, teachers have to make innovative teaching method to contrast typically passive and teacher-focused. Since young learners tend to have short attention spans and change their mode every other minute, and they find it extremely difficult to sit.

The classic problem appears when learners learn vocabulary. The students consider and see English as a foreign language that is not understood, unused, and feared. The limited time and teaching media, and unsuitable teaching techniques used by teacher are also common problems found in teaching vocabulary.
Another problem that students mostly face in learning vocabulary is that they easily forget the newly learned words. Students have to learn the way to keep remaining the words in their mind because vocabulary is generally a matter of remembering, unlike e.g. learning grammar, which is a system based mainly on rules. Thornbury (2004: 23) states that to be able to teach as effectively as possible, it is important to know how words are remembered and stored in students’ minds and how long term memory is organized.

One of the techniques that can be used in memorizing the words is mnemonic. Vocabulary memorizing is needed at the point of learning new words for the first time. Cameron (2001: 87) proves that vocabulary memorizing activities can make central use of the idea of networks of meaning.

Mnemonic enhances meaningfulness of information and it is helpful for students to practice using word orally or in written text. On the other hand, mnemonic connects words and ideas by relationships, which is used as a spelling aid. This technique helps because facts are more easily memorized when alliteration and rhyme reinforce them. They do not stand up to reason or logic, so more inquisitive students will be puzzled by their use. The usage of rhymes or music helps the students remembers to pronounce the words better and make fun in learning.

In real condition, many teachers still use direct instruction to teach vocabulary. The predominant use of direct instruction needs to be evaluated, and educators need to recognize the limitation of these techniques for developing the abilities, processes, and attitudes required for critical thinking, and for
interpersonal or group learning. In this technique, the teacher becomes the
decision maker. The teacher’s control occurs when the teacher selects and directs
the learning tasks. In this model, the activity is teacher-centered and the students
lack of opportunities in the class. They just become the followers and depend on
the teacher during the teaching and learning process. Usually, the teacher teaches
or explains words by directly translating it into target language. Every student
does not have chance to practice the words in the class because almost half of
time in teaching learning process is dominated by teacher. It can be seen that
direct instruction does not support and elevate students to be creative even active
in learning.

In teaching students in SDIT Salsabilla Baiturrahman Prambanan
especially in teaching vocabulary, the teacher usually uses teacher centered
teaching techniques. The students in common learning are just to be the passive
learners. They only listen to teacher’s explanation without being active on the
lesson. As a result, it can affect the weakness of students’understanding of the
lesson because there is no stimulus to enhance and motivate them to be active on
learning process.

Mnemonic is a technique that helps learners to recall larger pieces of
information that serve the information during the storage process in order to
improve ability of retrieving items or something. Mnemonic helps the students
learn faster when the problems appear on teaching vocabulary, including
pronouncing, spelling, and using the words. Moreover, for students who are
commonly forget the newly learned words, mnemonic helps to overcome those
problems and mnemonic improves retention of students’ memory. At last but not
the least, mnemonic will be used as a technique to teach vocabulary at SDIT
Salsabila Baiturrahman Prambanan.

Besides the technique used by the teachers, another factor that plays an
important role in teaching learning process is students’ creativity. Students having
high creativity usually perform better learning than students having low creativity.
Therefore, the teacher should be able to provide the students with activities which
can increase students’ creativity by implementing challenging atmosphere of
learning activities.

Based on the explanation above, it has been described that Mnemonics is a
technique that is suitable to be applied in teaching vocabulary for the students in
the second grade students of SDIT Salsabilla Baiturrahman Prambanan since it
can build the four indicators of vocabulary mastery. The researcher considers
students’ creativity (high or low) to know whether mnemonic is suitable for
students who have high creativity or low creativity and to know whether direct
instruction is suitable for students who have high creativity or low creativity.
After considering the theory and the object of the study, the researcher determines
the study which is entitled “The Effectiveness of Mnemonic to Teach vocabulary
viewed from Students’ creativity (An Experimental Study in the Second Grade
Students of SDIT SABAR Prambanan in the Academic Year 2012/2013).
B. **Problem Identification**

Dealing with the background of the study, there are some problems that can be identified:

1. Why do the students tend to have low vocabulary mastery?
2. What factors cause low vocabulary mastery?
3. Does teachers’ professionalism affect students’ vocabulary mastery?
4. Does the technique or the method of teaching used by the teacher influence students’ low vocabulary mastery?
5. Is mnemonic effective to teach vocabulary?
6. Does the students’ creativity influence their vocabulary mastery?
7. Is it necessary to consider the method of teaching used in terms of the students’ characteristics, like creativity?

C. **Problem Limitation**

The writer realizes that it is impossible to investigate all the problems, therefore, the writer only limits the problems of the research which are supposed to influence the students’ vocabulary mastery namely the techniques used by the teacher (mnemonic and direct instruction) and the students’ creativity (high and low).

D. **Problem Statement**

From the background of the study, problem identification, and problem limitation, there are three problems that are formulated, as follows:
1. Is Mnemonic more effective than direct instruction to teach vocabulary?
2. Do students who have high creativity have better vocabulary mastery than those who have low creativity?
3. Is there any interaction effect between teaching techniques and students’ creativity on the students’ vocabulary mastery?

E. Objective of the Study

This research is aimed to know the influence of teaching techniques and students’ creativity on the students’ vocabulary mastery, particularly, this research is proposed to know whether or not: (1) Mnemonic is more effective than direct instruction to teach vocabulary; (2) Students who have high creativity have better vocabulary mastery than those who have low creativity; and (3) There is any interaction effect between teaching techniques and students’ creativity on the students’ vocabulary mastery.

F. Benefit of the Study

1. For English Teacher

The result of this study is offering English teachers new technique to apply in teaching vocabulary. It also can gives spirit for the teachers to be more creative and innovative to upgrade their capability and ability in teaching vocabulary. Mnemonic techniques is helpful for the teacher in teaching activities. Since it provides theories and research findings related to the vocabulary teaching, it will enrich the teacher with the related theories. Based on the research finding,
Mnemonic is more effective than Direct Instruction. Therefore, the teacher can implement Mnemonic as the effective technique to teach vocabulary. This study provides the lesson plan to teach vocabulary using Mnemonic completed with the teaching procedures, teaching media, teaching material, and evaluation as guidance for the teacher to use the technique.

2. For the Students

This study is expected to make the students aware about the importance of vocabulary, both in the study at school and in the real life. It also gives the students an effective technique in learning vocabulary. The students can learn the concept in a fun and productive way because the teaching procedures and the media are arranged interestingly. Furthermore, the learners will feel happy and there is no reason for them to be passive and sit calmly during the learning process. The technique engages the students to think actively to achieve the maximum result of the study. By implementing Mnemonic technique, the students have ability to organize information, make use of the power association, and prevent interference between pieces of information.

3. For the other Researcher

The result of this study can be used to find the appropriate solution of the students’ problems in vocabulary mastery when other researchers intend to conduct the same research with different population characteristic and with different variable. The research can give additional contribution to develop instructional model and strengthen the similar theory.
CHAPTER II
REVIEW OF RELATED LITERATURE

A. Teaching English to Young Learners

Teaching English to children has been implemented since the very beginning age level because English is absolutely needed and has becomes marketable in our society. Children need experiences where they are interacting with and learning from others. Social contexts are needed by young learners to develop their language learning. Everybody surrounds them will be such inputs for them in fostering knowledge including language learning. Vygotsky (in Cameron, 2001: 6) states that children do not only need to learn through hands on activities, but also they need to learn in such situation in society.

In teaching English, the teacher should maximize their potential capability in language learning. Children as language learners are active, having a short attention span and like to play games. Slattery and Willis (2001) states that there are several characteristics of children as learners: (1) Trying to make sense of situations by making use of non-verbal clues; (2) Talking in their mother tongue about what they understand, and (3) Imitating the sounds they hear quite accurately, and copy the way adults speak. By knowing those characteristics, the teacher should know what the best techniques in conducting teaching English for young learners. Children are not miniature of adults. They are developing both physically and mentally.
B. The Nature of Vocabulary

1. The Definition of Vocabulary

According to Caroline and David (2005: 121), vocabulary is the collection of words that an individual knows. Hatch and Brown (1995: 1) prove that the term of vocabulary refers to a list or set of words for a particular language or words that individual speakers of language might use. Ur (1996: 60) argues that vocabulary is the words we teach in the foreign language. It means that all words in foreign language that have been taught by teachers in order that the students can use those words in sentences or daily communication. Crystal (2003: 2) states that the vocabulary of a person is defined either as the set of all words that are understood by that person or the set of all words likely to be used by that person when constructing new sentences. Brown (2001: 377) views vocabulary items as a boring list of words that must be defined and memorized by the student, lexical forms are seen in their central role in contextualized, meaningful language.

Cerce and Murcia (2001: 285) state that vocabulary is central to language acquisition whether the language is first, second or foreign language. It is real that vocabulary plays an important role for everyone who wants to learn and master the language skills. Nation (2008: 30) states that the learner needs to know of the “words”. It means that students need to know the words not only the meaning but also the spelling, pronouncing, and the usage of words.

Based on the explanations above, it can be concluded that vocabulary is a set of words or collection of words that must be defined and memorized by a
student or an individual speaker in order to construct new sentences or words covering of its meaning, pronunciation, spelling, and use.

2. The Types of Vocabulary

Based on some experts, there are different types of vocabulary. Harmer (1991: 150) distinguishes the first kind of vocabulary refers to the stock of words which have been taught by the teacher or learnt by the students and which are expected to be able to use. While the second term refers to the words of which the students will recognize when they meet them, but of which they will probably not be able to pronounce.

Haycraft (1997) divides two kinds of vocabulary, namely receptive and productive vocabulary.

a. Receptive Vocabulary

Receptive vocabulary is words that the learners recognize and understand when they occur in context, but which cannot produce correctly. It is vocabulary that the learners recognize when they see it in reading context but do not use it in speaking and writing. The receptive vocabulary is also called a passive process because the learner only receives thought form others. In language application, the receptive vocabulary is considered the basic vocabulary. It is much larger than productive vocabulary because there are many words recognized when the learner hears or reads but do not use when he speaks or writes.

b. Productive Vocabulary

Productive Vocabulary is the words, which the learners understand, can pronounce correctly, and use constructively in speaking and writing. It involves
what is needed for receptive vocabulary plus the ability to speak or write the appropriate time. Therefore, productive vocabulary can be addressed as an active process, because the learners can produce the words to express their thought to others.

According to Nation (2008: 13-14), there are four types of vocabulary, namely academic words, technical words, high frequency word, and low frequency words.

a. Academic words

For learners with academic purposes, the academic words are like high words frequency words and they deserve similar attention.

b. Technical words

Technical words are probably best learned while studying the content material of the particular specialist area by encouraging learners to make connections between technical and non-technical uses of the same words.

c. High frequency word

The high frequency words are useful no matter what use is made of English. They are important for both formal and informal use, for both oral and written use, and for both formal and informal words.

d. Low frequency words

The low frequency words make up a very small proportion of the running words in a text, once proper nouns are excluded usually less than 10% of the running words.

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3. What to Test in Vocabulary

Ur (1996: 60-62) provides six aspects that are needed to be taught by the teacher. They are as follows:

a. Form: Pronunciation and Spelling

The learner has to know how a word is pronounced (its pronunciation) and what it looks like (its spelling). These are fairly obvious characteristics, and one or the other will be perceived by the learner when encountering the item for the first time. In teaching, the teacher needs to make sure that both these aspects are accurately presented and learned.

b. Grammar

The grammar of a new item will need to be taught if this is not obviously covered by general grammatical rules. An item may have an unpredictable change of form in certain grammatical contexts or may have some idiosyncratic way of connecting with other words in sentences; it is important to provide learners with this information at the same time as the teacher teach the base form. When teaching a new verb, for example, teachers might give also its past form, if this is irregular (think, thought) and, teachers might note if it is transitive or intransitive. Similarly, when teaching a noun, teachers have to teach the plural form.

c. Collocation

The typical collocations of particular items are another factor that makes a particular combination sound ‘right’ or ‘wrong’ in a given context. So, this is another piece of information about a new item which may be worth teaching.
When introducing words like *decision* and *conclusion*, for example, students may note that they *take* or *make* the one, but usually *come* to the other.

d. Aspects of meaning (1): denotation, connotation, appropriateness

The meaning of a word is primarily what it refers to in the real world, its denotation; this is often the sort of definition that is given in a dictionary. For example, *dog* denotes a kind of animal, more specifically, a common, domestic carnivorous mammal; and both *dank* and *moist* mean slightly wet.

A less obvious component of the meaning of an item is its connotation: the associations, or positive or negative feelings it evokes, which may or may not be indicated in a dictionary definition. The word *dog*, for example, as understood by most British people, has positive connotations of friendship and loyalty; whereas the equivalent in the Arabic, as understood by most people in Arab countries has negative associations of dirt and inferiority.

A more subtle aspect of meaning that often needs to be taught is whether a particular item is the appropriate one to use in a certain context or not. For example, learners may know that *weep* is virtually synonym in denotation with *cry*, but it is more formal, tends to be used in writing more than speech, and is in general much less common.

e. Aspects of Meaning (2): meaning relationships

How the meaning of one item relates to the meaning of others can also be useful in teaching. There are various such relationships: here are some of the main ones.
1) Synonyms: Items that mean the same, or nearly the same; for example bright, clever, smart are the synonyms of intelligence.

2) Antonyms: Items that mean the opposite; rich is the opposite of poor.

3) Hyponyms: Items that serve as specific examples of a general concept; dog, lion, mouse are hyponyms of animal.

4) Co-hyponyms or Co-ordinates: Other items that are the “same kind of thing”; red, blue, green, and brown are co-ordinates.

5) Superordinates: General concepts that cover specific items; animal is superordinate dog, lion, horse.

6) Translation: Words or expressionism the learners’ mother tongue that is (more or less) equivalent in meaning to item being taught.

f. Word Formation

One word or multi-word, vocabulary item can often be broken down into small component or “bits”. Exactly how these bits are put together is another piece of useful information-perhaps mainly for more advanced learners. The teacher may wish to teach the common prefixes and suffixes: for example, if learners know the meaning of sub-, un- and –able, this will help them guess the meaning of words like substandard, ungrateful and untranslatable. Another way vocabulary items are built is by combining two words (two nouns, or gerund and noun, or a noun and verb) to make one item. For example: bookcase, follow-up, swimming pool.
Thronbury (2002: 15) states that at the most basic level, knowing a word involves knowing:

a. Its form, and
b. Its meaning

Knowing the meaning of a word is not just knowing its dictionary meaning, it also means knowing the words commonly associated with it (its collocations) as well as its connotations, including its register and its cultural accretions. Roger (1995: 43) states that knowing a word is important by knowing:

1. Part of speech of word: whether it is noun, verb, adjective.
2. The form: form here includes how the word is spelled. If the word has more than one syllables, the teachers should know where the stress are.
3. The meaning: What exact meaning in which context the teachers want to focus on is extremely important.
4. The use: some words and expressions have a restricted use.

Folse (2004: 10-18) states that what it means to “know” a word includes seven things.

a. Polysemy, indicating that a word rarely has more than one meaning
b. Denotation and connotation
c. Spelling and pronunciation
d. Part of speech
e. Frequency
f. Usage, it is appropriate to use that word instead of a synonym or similar word.
g. Collocation, a word or phrase that naturally and frequently occurs before, after, or very near the target vocabulary item.

From the explanations above, it can be concluded that the indicators of vocabulary are: (1) finding meaning; (2) pronunciation; (3) spelling; and (4) use.

4. Teaching Vocabulary

Learning vocabulary as a basic to improve of four English skills is something that couldn’t be avoided in learning English. Dellar and Hocking in Scott (2002: 13) states that if we spend most of our time studying grammar, our English will not improve very much in other away around we will see most improvement if the learners learn more words and expressions. There are also some statements made by learners why learning vocabulary is very important. Those are: (a) oral is my weakness and it can be difficult to speak a fluent sentence because of lack of useful vocabularies; (b) it will improve of vocabulary mastery because of always using same idiomatic expressions to express different sorts of things; and (c) speaking practice is hardy done, it is caused by missing word (Scott, 2002: 13).

According to Haycraft (1986: 47), before presenting vocabulary to elementary school students, it is helpful to remember the following things:

a. Teaching the words in spoken form first, and only when students can pronounce them well, introduces the written form. Otherwise, students will always try and pronounce English words as if they were written in their own language, and it will be difficult for the teacher to break this.

b. Try to present new words in context.
c. Revision is essential. Blend words that have been presented into letter practice.

Vocabulary needs to be met and recycled at intervals, in different activities, with new knowledge and new connections developed each time the same words are met again. There are five ways in teaching vocabulary. Hatch and Brown (1995: 372) in Cameron (2001: 84) describe five ways in teaching vocabulary as follows:

a. Having sources for encountering new words.
b. Getting a clear image, whether visual or auditory or both, for the form of new words.
c. Learning the meaning of the words.
d. Making a strong memory connection between the forms and meanings of the words.
e. Using the words

According to Michael Graves (2000), there are four components of an effective vocabulary teaching. They are as follows:

a. Wide or extensive independent reading and to expand word knowledge.
b. Instruction is specific word to enhance comprehension of texts containing those words.
c. Instruction in independent word-learning strategies, and
d. Word consciousness and word-play activities to motivate and enhance learning.
One of the important roles of the language teacher is to help their students in the easiest way of conveying new information into the already existing system of the mental lexicon (Thornbury 2004: 93). Moreover, students need to acquire the ability to store the information for as long as possible. Thornbury (2004: 24-26) summarized a research into memory, which suggests principles supporting the process of permanent or long–term remembering. Furthermore, he stresses the importance of retrieval and use of the new words. While practicing, learners should make decisions about words, e.g. match rhyming words or use new items to complete sentences.

Moreover, personalizing in vocabulary practice has proved to be beneficial for remembering along with spacing, which means that presentation of new vocabulary is divided into more widely, separated sequences followed by repeated revision later on with gradually extending periods between them, e.g. the end of the lesson, next lesson, next weeks, and so on.

C. Mnemonic Technique

1. The Definition of Mnemonic Technique

Congos (2005: 1) states that Mnemonics are memory devices that help learners recall larger pieces of information. Mnemonics rely on associations between easy-to-remember constructs which can be related back to the data that are to be remembered. This is based on the observation that the human mind much more easily remembers spatial, personal, surprising, physical, sexual or humorous or otherwise meaningful information, as compared to retrieving arbitrary sequences.
Mnemonic is tricks to help retrieve items or rules that are stored in memory and that are not yet automatically retrievable (Thornbury, 2002: 25). If material is presented in a way which fits in or relates meaningfully to what is already known, then it will be retained for relatively long periods of time and thus retrieval through verbal or visual clues becomes quite easy.

In other words, by using mnemonic, teachers can relate new information to information students already have stored in their long-term memory. For vocabulary learning, they are used to relate the word to some previously learnt information, using some forms of imagery or grouping (Mastropieri and Scruggs, 1991). Thompson (1987) in Amiryousefi & Ketabi (2011: 179) similarly acknowledge the usefulness of mnemonic by stating that they can help learners learn faster and recall better by integration of new material into existing cognitive units and by providing retrieval cues. Cameron (2001: 87) adds that vocabulary memorizing activities can make central use of the idea of networks meaning.

Based on the research done by several researchers, after the students learn words by using mnemonic, they will enhance meaningfulness of information easily. Automatically, if the students have known the meaning of the words, they will not find difficult the usage of words. It was found that using mnemonic is a wonderful and fun way to help students put information into their long-term memory. Mnemonic tries to give some of the students some help to remember how to spell words. Not only does it help them spell the words, it also found that
using a mnemonic is very effective in pronouncing the words. Pronouncing the word enables the students to remember it longer and identify it more readily.

From the definitions above, it can be concluded that mnemonic is memory devices that help learners recall larger pieces of information that serve the information during the storage process in order to improve ability of retrieving items or something. As a result, mnemonic helps the students learn faster and recall words better by providing retrieval cues and relating the words to some previously learnt information. Moreover, mnemonic help students to find the meaning, spell, pronounce, and use the words effectively.

2. The Procedures of Mnemonic Technique

According to Bruice, et al., (2000: 211-212), the students are taught the following steps:

a. Organizing information to be learned. Consider the following list of words from a popular spelling series. The teacher asks the students to classify the words by beginnings, endings, and the presence of vowels. The act of classification requires the students to scrutinize the words and associate words containing similar elements. They can then name the categories in each classification, calling further attention to the common attributes of the group. They can also connect words that fit together. They can then proceed to rehearse the spelling of one category at a time.

b. Ordering information to be learned. Information is learned in series, especially if there is meaning to the series. The teacher could have the students alphabetize their list of spelling words.
c. Linking information to familiar material (sounds and meanings are both given consideration).

d. Linking information to visual representation. The words “house” can be linked to the picture: a person is feeling thirsty (haus) who is standing in the house, etc.

e. Linking information to associated information. A person’s name, linked to information such as a well-known person having the same name, sound-like, and personal information.

f. Devices that make the information vivid are also useful.

Fulk and Bulgren, et al. (1994) in Mastropieri and Scruggs (1998) describe 6 steps in teaching vocabulary by using mnemonic:

a. Inform students about the purpose of the instruction and the rationale using mnemonic.

b. Make charts listing the steps involved in generating technique. King-Sears, et al. (1992) taught students the IT FITS strategy: (1) identify the term; (2) tell the definition of the term; (3) find a keyword; (4) imagine the definition doing something with the keyword; (5) think about the definition doing something with the keyword; and (6) study what you imagined until you know the definition.

c. Provide models during which examples and thinking processes are said aloud. And demonstrate how you proceed with your thinking while generating a strategy for specific examples.
d. Arrange guided practice with relevant feedback on both strategy usage and attribution feedback. Provide corrective feedback and allow opportunities for students to share their thinking with one another about how they developed their strategies. In this activity, the students do not only practice the words which have been learned but they also practice in real context orally or in written form using the simple sentence.

e. Provide general instruction, practice, and feedback. Use different types of materials to demonstrate how the strategy can be applied across content areas and various types of factual information.

f. Include positive reinforcement and positive attribution training for completing the tasks and for remembering the information correctly. Provide review and practice with information that was learned using technique.

Congos (2005: 1) states that there are several procedures used in teaching vocabulary by using mnemonic. Those are as follows:

a. The teacher sings a song that is related to the material given and then the students follow the teacher’s song. Music can be used to help students recall important details to main. Automatically, they will also remember better how to pronounce the words.

b. The teacher asks the students to remember the keyword, envision the picture and how it relates to the definition, and finally recall the definition. When asked to recall the definition of words, students engage in a four-step process:
1) Think back to the keyword.
2) Think of the picture.
3) Remember what else was happening in the picture.
4) Produce the definition.

c. Create the first or more than one letter of each word in a list of items to make a name of a person or thing. In this case, this activity will help the students spell the words easily.

From the theories above, it can be assumed that there are several procedures used in teaching vocabulary by using mnemonic:

Step 1. The teacher informs students about the purpose of the instruction and the rationale using mnemonic.

Step 2. The teacher sings a song that is related to the material given and then the students follow the teacher’s song. Music can be used to help students recall important details to main. Automatically, they will also remember better how to pronounce the words.

Step 3. The teacher ask the students to create and remember the keyword by linking information to familiar material (sounds and meanings are both given consideration), envision the picture and how it relates to the definition, and finally recall the definition. When asked to recall the definition of words, students engage in a four-step process: (a) think back to the keyword (b) think of the picture (c) remember what else was happening in the picture; and (d) Produce the definition.
Step 4. Create the first or more than one letter of each word in a list of items to make a name of a person or thing. In this case, this activity will help the students to spell the words easily.

Step 5. Provide corrective feedback and allow opportunities for students to share their thinking with one another about how they developed their technique. In this activity, the students do not only practice the words which have been learned but they practice in real context orally or in written form using the simple sentence.

3. The Advantages and Disadvantages of Mnemonic Technique

Paivio (1971: 159-161) says that the advantages of mnemonic are as follows:

a. Mnemonics organize information
b. Mnemonics make use of the power of association.
c. Mnemonics provide retrieval cues.
d. Mnemonics prevent "interference" between pieces of information.
e. Mnemonics make use of novelty, or "distinctiveness.

Disadvantages of mnemonic as Groeger (1997) in ((Mastropieri and Scruggs, 1998) states are as follows:

a. It is very difficult to find a key word for certain words.
b. The use of certain devices entails a certain level of proficiency. Students with different levels of proficiency may need different techniques.
c. When certain strategies are agreed up on, the teacher should instruct the strategy and its importance and effectiveness.
D. Direct instruction

1. The Definition of Direct Instruction

Direct Instruction characterized by teacher-centered and teacher-dominated classroom (Peterson, 1999: 231). Because direct instruction is widely used by teachers, the predominant use of direct instruction technique needs to be evaluated, and educators need to recognize the limitation of these methods for developing the abilities, processes, and attitudes required for critical thinking, and for interpersonal or group learning. Students’ understanding of affective and higher level cognitive objectives may require the use of instructional techniques associated with other strategies. In this model the teacher becomes the decision maker. The teacher’s control occurs when the teacher selects and directs the learning tasks.

Direct Instruction was specifically designed to promote student learning of procedural knowledge and declarative knowledge that can be taught in step-by-step fashion (Arends, 1998:66). Direct instruction is usually deductive. That is, the rule or generalization is presented and then illustrated with examples. While this strategy may be considered among the easier to plan and to use, it is clear that effective direct instruction is often more complex than it would first appear.

According to Joyce and Weil (1986: 326) the teacher also provides feedback and correction for the students’ mistake. Direct instructional model is one of the highest priorities on the assignment and complexion of academic tasks in the classroom. Direct Instruction is one of which there is a predominant focus on learning and in which students are engaged in academic tasks, a large
percentage of time and achieve at a high rate of success (Bruce, et al., (2002: 338). Direct instructional is similar to traditional teaching. Generally vocabulary traditional teaching is directed toward teaching academic content.

According to Hansen and Eller (1999: 309), direct instruction includes frequent lesson where the teacher presents information and develop concept through demonstration and lectures, most of the lectures involve questioning students and providing feedback. When students respond the teachers’ questions, the teachers provide appropriate feedback.

Based on explanation above, direct instruction is teacher-centered technique that includes frequent lesson where the teacher presents information and develops concept through demonstration and lecture which are focused on utilizing systematic and explicit instruction by providing feedback and correction of students’ mistake to engage them in successful academic task. Moreover, direct instruction is specifically designed to promote student learning of procedural knowledge and declarative knowledge.

2. The Procedures of Direct Instruction

Rosenshine (1986) in Hansen and Eller (1999: 311) describe several steps for direct Instruction:

a. Daily review and check the previous day’s work. Reteach or review material if errors are found on the previous day’s work of homework.

b. Present new contents, concepts, and skills. Follow a sequential pattern by first providing an overview of the content, similar to the ‘advance organizer’.
c. Determine whether students have mastered content materials. This is done with the students “practicing” in a group. Teacher provides students practice in their learning; asks questions; and give students an opportunity to presents what they learned in front of their group.

d. Give feedback and corrective information to students on their answers to questions and on their written assignment. When reviewing and reteaching, simplify subject content; provide clues to the students; explain or review the steps; and reteach, using smaller steps than were used in the initial presentation in the materials.

e. Allow students to independently practice the material trough assigned academic task. The goal of the independent practice is that students master the subject material.

f. Review previous material on a weekly and monthly basis.

Haynes (2008) recommends some effective vocabulary direct instructions for English Teaching. Those are as follows

<table>
<thead>
<tr>
<th>No</th>
<th>The steps</th>
<th>Teacher behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Focus on vocabulary development and modifying content area teaching methods and materials.</td>
<td>1. Teacher discusses methods and content area for teaching vocabulary to the learners before teaching learning process.</td>
</tr>
<tr>
<td>2.</td>
<td>Use explicit instruction of vocabulary.</td>
<td>2. Teacher teaches new vocabulary explicitly and each new word be directly linked to an appropriate strategy by understanding context clues such as embedded definitions, pictures, and charts in order to comprehend the text.</td>
</tr>
<tr>
<td>3.</td>
<td>Introduce the most essential vocabulary before beginning a new chapter or unit.</td>
<td>3. Teacher pronounces each word for students and has the students repeat after commit to user.</td>
</tr>
</tbody>
</table>
4. Build background knowledge

4. Teacher reviews relevant vocabulary that was already introduced and highlights familiar words that have a new meaning.

5. Use visuals when introducing new words and concepts.

5. Teacher provides realia, pictures, photographs, graphic organizers, maps, and graphs to help the students in understanding the meaning.

6. Provide a variety of activities to practice new vocabulary.

6. Teacher provides for example two word walls. On one wall, she writes everyday words that students need to learn and practice. These words are removed when students no longer need them. On the second wall is written the words that is write unit- or content-specific vocabulary.

7. Promote oral language development through cooperative learning groups.

7. Teacher have students speak English based the words have been explained.

Arends (1998: 66) states that there are five phases in teaching vocabulary using direct instruction. They are as follows:

<table>
<thead>
<tr>
<th>Phases</th>
<th>Teacher Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>Teacher goes over objective for the lesson, gives background information, and explains why the lesson is important. Get students ready to learn.</td>
</tr>
<tr>
<td>Phase 2</td>
<td>Teacher demonstrates the skill correctly or presents step-by-step information.</td>
</tr>
<tr>
<td>Phase 3</td>
<td>Teacher structure initial practice.</td>
</tr>
<tr>
<td>Phase 4</td>
<td>Teacher checks to see is students are performing correctly and provide feedback.</td>
</tr>
<tr>
<td>Phase 5</td>
<td>Teacher sets conditions for extended practice with attention to transfer to more complex and real life situations. In this activity, the students are asked to practice written or orally of words that the teacher has explained in real context.</td>
</tr>
</tbody>
</table>
Marzano (2010) states that the procedures of direct instruction can be determined as follows:

a. The teacher explains a new word, going beyond reciting its definition (tap into prior knowledge of students, use imagery). Students restate or explain the new word in their own words (verbally and in writing). In this activity, the students can see and learn not only the meaning but also the spelling of the words that are being presented by the teacher.

b. Asking students to create a non-linguistic representation of the word (a picture, or symbolic representation).

c. Students engage in activities to deepen their knowledge of the new word (compare words, classify terms, and write their own analogies and metaphors).

d. Students discuss the new word (pair-share, elbow partners).

From the theories above, it can be summarized that the procedures of direct instructions are as follows:

Step 1: Teacher goes over objective for the lesson and explains why the lesson is important.

Step 2: Teacher explains a new word by reciting its definition then students restate or explain the new word in their own words (verbally and writing). In this activity, the students can see and learn not only the meaning but also the spelling of the words that is being presented by the teacher.
Step 3. Teacher has students speak based the words which have been explained. Teacher pronounces each word for students and has the students repeat after the teacher.

Step 4. Teacher sets conditions for extended practice with attention to transfer to more complex and real life situations. In this activity, the students are asked to practice written or orally of words that the teacher has explained in real context.

Step 5. Determining whether students have mastered content materials. This is done with the students “practicing” in a group. Teacher provides students practice in their learning, asks questions, and gives students an opportunity to presents what they have learned in front of their group.

Step 6. Giving feedback and corrective information to students on their answers to questions and on their written assignment.

3. The Advantages and Disadvantages of Direct Method

The advantages of direct instruction in (Teacher Reading Academy journal, 2002) are as follows:

a. Exposing students to high-quality oral language.

b. Promoting word consciousness.

c. Teaching word meaning directly.

d. Teaching independent word-learning strategies, including the use of context clues, the use of word parts, and the efficient use of the dictionary.
The disadvantages of direct instruction in (Dr. Bob Kizli’s article, 2012) are as follows:

a. It can stifle teacher creativity.

b. It requires well-organized content preparation and good oral communication skills.

c. The steps must be followed in prescribed order.

d. It may not be effective for higher order thinking skills, depending on the knowledge base and skill of the teacher.

E. Contrast Steps between Mnemonic Technique and Direct Instruction in Teaching Vocabulary

Table 2.1 The differences between Mnemonic Technique and Direct Instruction

<table>
<thead>
<tr>
<th>Aspects</th>
<th>Mnemonic</th>
<th>Direct Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson Plan 1</td>
<td>School: SDIT Salsabilla Baiturrahman</td>
<td>School: SDIT Salsabilla Baiturrahman</td>
</tr>
<tr>
<td></td>
<td>Class/semester: II/ I</td>
<td>Class/semester: II/ I</td>
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<tr>
<td></td>
<td>Theme: Number (1-20)</td>
<td>Theme: Number (1-20)</td>
</tr>
<tr>
<td></td>
<td>Skill: Vocabulary</td>
<td>Skill: Vocabulary</td>
</tr>
<tr>
<td></td>
<td>Allocation of time: 2 x 35 menit (2</td>
<td>Allocation of time: 2 x 35 menit (2</td>
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<td></td>
<td>meetings)</td>
<td>meetings)</td>
</tr>
<tr>
<td></td>
<td>Technique/ method: Mnemonic</td>
<td>Technique/ method: Direct Instruction</td>
</tr>
</tbody>
</table>

2. Indicators

Students are able to:
1. Find the meaning of words
2. Pronounce the words
3. Spell the words
4. Use the words in sentence

The students are able to:
1. Find the meaning of words
2. Pronounce the words
3. Spell the words
4. Use the words in sentence

3. Media and Resource

a. Media
   ✓ Picture
   ✓ White board & board marker
   ✓ Work sheet
b. Resources
   Active English A Fun And Easy English Book 2

a. Media
   ✓ White board & board marker
   ✓ Work sheet
b. Resources
   Active English A Fun And Easy English Book 2
4. Teaching Learning Process

1. The teacher writes down the song lyric that is related with “number”.
2. Asking students to sing the song till they have memorized that song.
3. Reinforcement (pronouncing the words correctly then asking the students to pronounce the word loudly).
4. The teacher and students create the key words that are appropriate with each word provided:
   a. Showing the pictures that are related with each words,
   b. Asking the student to save and imaging the picture in their mind, and
   c. Asking the students to produce the definitions.
5. The teacher asks the students to create words of person’s name or thing together by taking from the first or more than one letter of each word in the list of words.
6. Explaining how to make a simple sentences by using language function “this is …”. For example: this is number one, this is number two, etc.
7. In pairs, the teacher asks the students to practice the words by guiding them into creating the simple sentences using singular and plural expression “this is number ten, this is number eleven, etc.”
8. Providing corrective feedback (pronouncing it, finding the meaning, spelling it) by showing them the pictures (key word pictures) that the students have learned, and then teacher asks them to pronounce it, find the meaning, and spell it together. In pairs, the teacher asks the students to practice using the words.

Lesson Plan 2

<table>
<thead>
<tr>
<th>Aspects</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. School</td>
<td>School</td>
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<td></td>
<td>SDIT Salsabilla</td>
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<tr>
<td>Class/semester</td>
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<tr>
<td>Theme</td>
<td>Animals</td>
<td>Theme</td>
</tr>
<tr>
<td>Skill</td>
<td>Vocabulary</td>
<td>Skill</td>
</tr>
<tr>
<td>Allocation of time</td>
<td>2 x 35 menit (2 meetings)</td>
<td>Allocation of time</td>
</tr>
<tr>
<td>Technique/ method</td>
<td>Mnemonic</td>
<td>Technique/ method</td>
</tr>
</tbody>
</table>

2. Indicators

The Students are able to:

The Students are able to:
1. Find the meaning of words
2. Pronounce the words
3. Spell the words
4. Use the words in sentence

### Media and Resource

- **Media:**
  - Picture
  - White board & board marker
  - Work sheet

- **Resources:**
  - Active English A Fun And Easy English Book 2

### Teaching Learning Process

1. The teacher writes down the song lyric that is related with “animals”.
2. Asking students to sing the song till they have memorized that song.
3. Reinforcement the words (pronouncing the words correctly then asking the students to pronounce the word loudly)
4. The teacher and students create the key words that are appropriate with each word provided:
   - a. Showing the pictures that are related with each words,
   - b. Asking the student to save and imagine the picture in their mind, and
   - c. Asking the students to produce the definitions.
5. The teacher asks the students to create words of person’s name or thing together by taking from the first or more than one letter of each word in the list of words.
6. Explaining how to make a simple sentences by using language function “like expression”.
   - For example: I like cat/ Putri likes cats ...

7. Giving feedback and corrective information of the students’ presentations.
8. In group, the teacher asks the students to present the words that they have learned, including their meaning, spelling, pronouncing, and using.
After analyzing teaching steps between Mnemonic and Direct Instruction to teach vocabulary, below are the summarizing the similarities and differences teaching steps of both techniques mnemonic and direct instruction:

The similarities of both techniques are that teacher gives feedback and corrective information to students and provide opportunities for students to presents what they have learned to the other. While the differences between Mnemonic and direct instruction technique in teaching vocabulary. They are as follows:

1. Mnemonic creates student of being active and fun on learning to contrast typically of passive and teacher-focused provided in direct instruction steps. In mnemonic provides music as a device to pronounce the words while in direct instruction students only repeat the words after teacher pronounces the words.

2. In mnemonic students remember the words by linking information to familiar material while in direct instruction they just learn the words by reciting its definition after the teacher instruction. Moreover, in mnemonic, the students are trained to spell words easier by creating the first or more than one letters to make a name of person of thing. In direct instruction students learn to spell words by seeing directly on the board.
F. Creativity

1. The Definition of Creativity

Creativity is defined as the tendency to generate or recognize ideas, alternatives, or possibilities that may be useful in solving problems, communicating with others, and entertaining ourselves and others (Robert E. Franken, *HumanMotivation*, 3rd ed., 396). Supriadi (in Sri Narwanti, 2011: 4) states that creativity is someone’s ability to create something new which is different from the previous one. Creativity is an important human characteristic. It is perhaps best thought of as a process, requiring a mixture of ingredients, including personality traits, abilities, and skills (Malaguzzi, 2009).

Creativity refers to the phenomenon whereby a person creates something new (a product, a solution, a work of art, a novel, a joke, etc) that has some kind of value. What counts as "new" may be in reference to the individual creator, or to the society or domain within which the novelty occurs.

According to “Heritage Illustrated Dictionary” (1999) there are three aspects of creativity. They are as follows:

a. The creative process which focuses on the mechanisms and phases involved as one partakes in a creative act.

b. The creative person aspect which has central focus on personality traits of creative people.

c. The criteria or characteristics of creative products which become performance assessment of real world creativity.
Gordon in Joyce, et al., (2000: 221-222) grounds synectics in four ideas about creativity: (1) creativity is important that in daily activities. He adds that creativity as a part of our daily work and leisure live; (2) the creative process is not at all mysterious. It can be described, and it is possible to train persons directly to increase their creativity; and (3) creative invention is similar in all fields_ the arts, the sciences and is characterized by the same underlying intellectual processes; and (4) individual and group inventions (creative thinking) are very similar.

It can be concluded that creativity is a person’s ability to create something new as the tendency to generate or recognize ideas, alternatives, or possibilities that can be useful in solving problems, communicating with others, and entertaining ourselves and others. Creativity has three aspects, namely: (1) creative process; (2) creative person; and (3) creative product.

2. Aspects of Creativity

According to Guilford in Semiawan (1998: 63), “Aptitude traits that belong most clearly logically in the area of creativity ... fluency of thinking and flexibility of thinking, as well as originality, sensitivity to problems, redefinitions and elaboration ... classifiable in a group of divergent thinking abilities. ”Abdul Ghaffar in Langgulung (1991: 199) interprets and adds Guilford test in four items as: fluency (fluency of speech, fluency of communication, fluency of pronouncing, and fluency of thinking); spontaneous flexibility; originality; and sensitivity to problems.
It is stated in (Torrance, n.d), about the two kinds of Torrence Test of Creative Thinking (TTCT). There are some mental characteristics measured.

- The Figural TTCT: Thinking Creatively with Pictures uses three picture-based exercises to assess five mental characteristics: fluency, elaboration, originality, resistance to premature closure, and abstractness of titles.
- The Verbal TTCT: Thinking Creatively with Words uses six word-based exercises to assess three mental characteristics: fluency, flexibility, and originality.


From those definition above it can be concluded that creativity viewed as aptitude traits is a divergent thinking ability which involves some mental characteristics of flexibility of thinking, fluency of thinking, originality, and elaboration.

3. The Instrument of Creativity

Creativity test consists of six sub-tests. The descriptions of the sub-tests on creativity are as follows:

a) Word Initials

In this test, a subject should think as many words starting with certain letters as possible in two minutes. The purpose of this test is to measure the fluency with words that meet certain determined criteria used in English.
b) Word Creation

When doing this test, a subject is required to arrange as many words from a given word as possible in two minutes. This test is aimed at measuring not only fluency with words but also fluency to arrange words into a grammatically correct sentence pattern in English.

c) Sentence Formulation from Three Letters

For this test, a subject has to arrange as many sentences as possible from three given letters in which the first letter has been determined in three minutes. In arranging a sentence, a subject may freely place each letter in a formed sentence. However, he/she is not allowed to write the words he/she writes before. This test is to measure the fluency in expressing something in the form of sentence meeting a certain grammatical English pattern.

d) Similar Characteristics

The objective of this test is to find out as many things from two similar characteristics given as possible in two minutes. This kind of test is to measure the fluency in expressing ideas meeting certain given criterion.

e) Extraordinary Uses of Words

The purpose of this test is to think of as many devices that have unusual uses as possible in two minutes. This test is to measure the flexibility of minds since a subject should not be influenced by the common uses of a device. In the other hand, a subject needs to think beyond what a device is used in everyday life. This test is to measure both the flexibility of minds and the
originality of minds. In this test, the originality is measured statistically by considering the uniqueness or unusualness of a written answer.

f) Consequences or Effects

In this test, a subject needs to think as many consequences as possible from a given condition in four minutes. This test requires a subject to be imaginative and to be able to express his imagination into a written form. What this test measures is the fluency in expressing ideas and the ability to elaborate an idea into a specific matter yielding various implications.

Table 2.2 Blue Print of Creativity

<table>
<thead>
<tr>
<th>No</th>
<th>Aspects</th>
<th>Indicators</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Flexibility</td>
<td>a. The ability to find ideas</td>
<td>a. Expressing ideas in solving a problem with the smooth.</td>
</tr>
<tr>
<td>2</td>
<td>Fluency</td>
<td>a. The ability to generate ideas to solve a problem from different perspective.</td>
<td>a. Thinking about all sorts of different ways to solve a problem.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. The ability to change the mindset to become more advanced.</td>
<td>b. Changing flow of thought spontaneously.</td>
</tr>
<tr>
<td>3</td>
<td>Originality</td>
<td>a. The ability to find new and unique ideas.</td>
<td>a. Finding solutions of the problem that is never thought by the others.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. The ability to find new ideas by making a combination of ideas or thoughts earlier.</td>
<td>b. Considering the various solutions that have applied in the previous problem.</td>
</tr>
<tr>
<td>4</td>
<td>Elaboration</td>
<td>a. The ability to be able to develop an idea.</td>
<td>a. Developing ideas that have been expressed by others before.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. The ability to specify the details of an idea</td>
<td>b. Expressing ideas that have been expressed by others in detail.</td>
</tr>
</tbody>
</table>

G. Review of Related Studies

There are some researchers conducted a study in the implementation of Mnemonic technique to teach particular skills/competences. Williams & Lynn
(2012) conducted the research entitled “Children's ability to utilize the mnemonic keyword technique: An educational application within fourth-grade. The purpose of their study was to demonstrate the viability of the mnemonic keyword method as a study technique when compared to notetaking/outlining, a common study technique recommended by fourth grade curricula. The subjects were 106 fourth graders enrolled in four classes at a rural elementary school. Research had shown that the mnemonic keyword is an effective study technique under controlled laboratory-type situations with subjects learning decontextualized facts. Very few studies have actually tested the mnemonic keyword method within the context of a normal fourth grade classroom and learning situation. Data were collected over a four week period which included both instructional and transfer phases. During the first week, intact classes were instructed by the researcher in either the mnemonic keyword technique or notetaking during the reading period. During the second week, the researcher continued instruction in each study strategy by demonstrating how the strategy could be applied to a unit in social studies. During the third and fourth weeks, the subjects were instructed by the classroom teachers who used researcher-provided instructional scripts for social studies and science units. During this transfer phase, subjects were not encouraged to utilize any particular method, but rather were instructed to use their best study technique to learn the information. Each unit in weeks two through four was followed by assessment measures and study technique questionnaires. Data were analyzed using a repeated measures MANOVA on the tests administered during the instructional phase, a MANOVA on the social studies transfer, and a MANCOVA
on the science transfer. Results indicated that there were no statistically significant results on any of the testing measures. However, the overall results were promising as the subjects instructed in the mnemonic keyword technique performed equally as well as those instructed in notetaking/outlining on all measures. This indicates that the mnemonic keyword technique, while not superior to notetaking/outlining, is indeed a practical study technique applicable to normal classroom use.

DeWitt (2012) conducted the research entitled “Mnemonic Technique: A study of SAT vocabulary in high school English”. The purpose for his research study was to introduce and develop supplementary English material for SAT vocabulary instruction by providing memory-enhancing techniques for students with and without disabilities. Five inclusive English classrooms were assigned treatments in a within-subjects crossover design where all students received both treatment conditions—traditional instruction and mnemonic instruction. Memory-enhancing techniques are mnemonic devices that target specific vocabulary and provide additional practice using a visual representation to increase comprehension. Mnemonic devices assist students with encoding the new content information in order to make retrieval easier. Participants included 103 students in 10th through 12th grade, including 31 students with disabilities. Two general education teachers and two special education teachers participated in this study. Students received instruction in two units for four weeks and were pre and post tested on all vocabulary introduced. Students were given technique use and satisfaction surveys. Attitudinal and satisfaction surveys were also given to
teachers. Overall findings revealed that students with disabilities performed significantly better on delayed cumulative posttest. Tenth grade students in the mnemonic condition performed descriptively higher on delayed cumulative posttest than eleventh and twelfth graders. The majority of students responded that, compared to traditional instruction, they preferred and enjoyed the use of mnemonic techniques as well as learned how to generalize to their own learning preferences. Teacher attitudes varied but mostly favored mnemonic instruction. In From this research, it can be concluded that it is necessary to successful reading practices. The number of appropriate words and at rate the words are taught depending on other developmental factors. Vocabulary growth needs to continue into the upper grades to support more difficult text and adaptability to differ types of reading materials.

Spackman (2010) conducted a research entitled “Mnemonics technique and research on using the keyword method in the classroom”. The goal of much of this research on the keyword technique is determining the value of the technique for memorizing facts, often lists of vocabulary words. More research on the direct use of the technique in the classroom would be useful. Research done in the classroom with students obviously gives a clearer idea of how teachers can incorporate mnemonic techniques into their classrooms effectively. There were seven classrooms used in this research. The research finding showed that the keyword of Mnemonics in the Classroom 7 can be helpful for limited English proficiency (LEP) students in an ESL setting in American schools. One important aspect of that study was the use of L1 keywords by the students, who were all
native Spanish speakers. In this case, keyword associations and drawings were conducted for the students to use, which was most appropriate for the age level and language background of the students.

Amiryousefi and Ketabi (2011) conducted a research entitled” Mnemonic technique instruction: a way to boost vocabulary learning and recall”. Their study focused on mnemonic devices have consistently indicated that the use of mnemonic devices substantially enhances higher levels of retention in immediate and delayed recall of second language vocabulary words in comparison with other learning techniques. In all cases, the keyword technique proved to be highly effective, yielding in one experiment a final test score of 88% correct for the keyword group compared to 28% for the control group. Moreover, the study on children 3 to 6 years of age learning simple Spanish vocabulary items through keyword method. The results showed that children who used the keyword method remembered more vocabulary than children who were not instructed in keyword technique usage. It found significantly better recall when a group trained on the method of loci was compared to a control group. The study showed that memory technique or mnemonic technique can improve vocabulary learning. The result of the study also illustrated that first; technique instruction should be integrated into contextual vocabulary learning. After discovering the meaning of a word through different contexts, students should be guided to recall it via different memory strategies. Secondly, rather than providing the learners with one or two techniques, the instruction should focus on the whole array of techniques, and students should be asked to choose the most effective one(s) for themselves. To
do so teachers should be instructed about the use and instruction of different techniques.

Scruggs & Thomas, et al (2007) conducted the research entitled “Mnemonic Strategy Instruction in Inclusive Secondary Social Studies Classes”. In his research, fifty-nine students enrolled in 4 inclusive world history classes in a suburban high school participated in a within-participants research design to compare the relative effects of mnemonic techniques and direct instruction on academic performance. Regularly assigned high school teachers delivered instruction during history class periods. Keywords with interactive illustrations were alternated with direct instruction procedures to teach 2 units of world history to students in Grades 10 and 11 over a 4-week period. The results revealed no significant differences by condition or group on immediate unit tests. On the cumulative delayed recall tests, however, differences were observed by condition and group. An obtained interaction effect revealed that students for whom English was a second language scored significantly higher in the mnemonic condition, whereas no differences were observed for first-language English, general education students, or students with learning disabilities. Analysis of technique of the data revealed that students employed appropriate strategies, and observational data confirmed that student time on task was higher in the mnemonic condition. Survey data revealed general overall satisfaction with mnemonic technique on the part of teachers and students. Participants in these investigations have most often been identified as having LD, with smaller numbers having emotional disabilities or mild mental retardation. In all investigations identified to date, significant
positive effects were observed for student performance, whereas student and teacher satisfaction with the techniques was consistently positive.

Anjomafrouz & Tajalli (2012: 9) conducted the research entitled “Effects of Using Mnemonic Associations on Vocabulary Recall of Iranian EFL Learners over Time. The overall aim of the present study was to assess whether using mnemonic associations was effective in classroom setting and whether it was suitable for practical use by students as a learning technique. The data analyzed revealed that using mnemonic associations led to significantly better performance of the adult students when comparison was made with respect to an external control group (rote group) and better performance of both adult and adolescent groups when comparison was made with respect to an internal control group (when students used no association in mnemonic group). Furthermore, the higher performance of mnemonic groups who frequently reported using initial associations revealed that initial associations had a significant role at vocabulary recall of students. According to these findings the mnemonic-based techniques may turn out to be useful for different age groups.

H. Rationale

1. The Difference between mnemonic and direct instruction.

Mnemonic can relate new information to information students already have stored in their long-term memory. Mnemonic provides retrieval clues that make the student recall better the words have been explained. This condition will always create a positive atmosphere the students’ memorization of the words
covering of four indicators of vocabulary (its meaning, pronouncing, spelling, and use the words).

Meanwhile, direct instruction is a teacher-centered approach. The direct instruction is highly teacher-directed and is among the most commonly used. Direct instruction is similar to traditional teaching. Generally vocabulary traditional teaching is directed toward teaching academic content. Teachers cannot assess what the students’ prior knowledge is, so will be unaware of why particular students cannot learn. Moreover, the students do not have chance to develop their creative thinking in learning because the teacher as a whole decision maker in the class.

In short, mnemonic is supposed to be more effective than direct instruction to teach vocabulary.

2. The Difference between the students having high creativity and the students having low creativity.

It is very crucial for students of having high creativity in learning. They will be able to think creatively in their mind. The students always face every challenge, try to take a risk, have willingness to grow and stay on learning although it is something difficult. Furthermore, having high creativity is creating a pleasant, relaxed atmosphere in the classroom and familiarizing learners with the target language culture. They will study with great concentration, while bringing a positive aura of freshness and enthusiasm.

In contrast, the students having low creativity tend to be passive in the class. They are lazy, spiritless, and shy to do something because there is no
purpose in joining the class. The students having low creativity look to be silent on their chair without doing anything in teaching learning process. They do not want to study hard. Consequently, the teacher should treat and control them intensively to enhance their creativity in learning.

In line with the explanations about, it can be assumed that the students having high creativity have better vocabulary mastery than those having low creativity.

3. Interaction between teaching technique and students’ creativity.

The teaching technique which is used by the teacher in the class gives a big influence for the success of the teaching and learning process. To teach vocabulary, the teachers have to select the suitable technique that is supposed to maintain and motivate the students in joining the class. Direct instruction cannot motivate the students because this technique just focuses on academic content and teacher-centered. Automatically, the students’ creativity cannot be improved.

Direct instructional seems satisfy for the students having low creativity in mastering vocabulary. They depend on the teacher’s explanation to read something. They don’t need to be more active, and just wait for their teacher’s translation and explanation to know the message of the text. They are passive in doing the task. Moreover, they tend to be slower in receiving the material given by the teacher. That is why direct instruction is supposed to be more effective for the students who have low creativity. The students just become the followers and depend on the teacher during the teaching and learning process and usually work individually. Student activity can be mainly passive and the students’ awareness
during teaching learning process is certainly being lack. From the assumptions above, direct instruction could be an appropriate technique in teaching vocabulary for students having low creativity.

Mnemonic is effective for students who have high level of creativity, because by using mnemonic the teacher tries to create new way of learning that the teacher never applies before in teaching vocabulary. Mnemonics techniques are used to improve retention of memory. Mnemonics organize information. In other words, by using mnemonic, teachers can relate new information to information, students already have stored in their long-term memory. For vocabulary learning, they are used to relate the word to some previously learnt information. Using mnemonics will help students encode information in a more meaningful form and to provide them with a retrieval route at the time of recall. Automatically, the students are easier to memorize the words not only how to spell but also how to pronounce.

Creativity gives a big influence to the students to improve the students’ vocabulary mastery. If the students have high level of creativity they will have high ability in mastering vocabulary. They will memorize vocabulary better by mnemonic technique taught by teacher. Students came up with high creative ideas and personalizing the mnemonic seems to have eliminated in learning vocabulary. Moreover, students having high level of creativity will be faster and easier to express their good ideas in learning process.

It can be assumed that there is an interaction between teaching techniques and students’ creativity in teaching vocabulary.
I. **Hyphothesis**

Based on the theoretical description and rationale, the hypotheses can be formulated as follows:

1. Mnemonic is more effective than direct instruction to teach vocabulary for the second grade students of SDIT Salsabilla Baiturrahman Prambanan.
2. The students having high creativity have better vocabulary mastery than those having low creativity.
3. There is an interaction between teaching techniques and students’ creativity on the vocabulary mastery of the second grade students of SDIT Salsabilla Baiturrahman Prambanan.
CHAPTER III
RESEARCH METHODOLOGY

A. Research Method and Research Design

1. Research Method

The study is an experimental study, since it described the quantitative degree to which variables were related. It is also reasonable that the writer intends to examine the cause and effect among the variables, those are Mnemonic and Direct Instruction in teaching vocabulary viewed from students’ creativity. According to Fraenkel and Wallen (1993: 240) state that experimental research is one of the most powerful research methodologies, because it is the best way to establish cause and effect relationship between variables. Besides, it is the only type of research that directly attempts to influence a particular variable.

The experimental research has several characteristics: (1) it has two group, experimental and control group; (2) both groups are compared on the dependent variable; (3) both groups are measured by using post-test; and (4) treatment conducted for both groups will be done at the same time with the same material and also the same test too.

2. Research Design

The design used in this research is a simple factorial design (2x2). Generally, this research is aimed at knowing the effect of question answer
relationships to teach vocabulary mastery. The following is the research design:

Table 3.1 Factorial Design 2x2

<table>
<thead>
<tr>
<th>Teaching Techniques</th>
<th>Mnemonic Technique (A₁)</th>
<th>Direct Instruction (B₁)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creativity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High (B₁)</td>
<td>A₁B₁</td>
<td>A₂B₁</td>
</tr>
<tr>
<td>Low (B₂)</td>
<td>A₁B₂</td>
<td>A₂B₂</td>
</tr>
</tbody>
</table>

There are three variables in the research, namely two independent variables and a dependent variable. The independent variables are: (1) teaching techniques that consist of Mnemonic and Direct Instruction; (2) students’ creativity which can be differentiated into high and low. Whereas, the dependent variable is students’ vocabulary mastery.

B. Time, Place of the Study, and Profile of the Vocabulary Class

The research was conducted at the second grade of elementary school of SDIT Salsabila Baiturrahman Prambanan in the academic year of 2012/2013. The object of the research is the use of teaching techniques, mnemonic and direct instruction, viewed of the students’ creativity.

This study was conducted for about ten months, from February to November 2012. The schedule of conducting this research can be seen in the following table.

commit to user
Table 3.2 Time Schedule of Research

<table>
<thead>
<tr>
<th>Activities</th>
<th>Feb</th>
<th>Mar</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>Aug</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arranging Proposal</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preparing Instrument</td>
<td></td>
<td></td>
<td>√</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conducting treatment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td>√</td>
<td>√</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collecting and analyzing the data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making report</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

The researcher also figures out how the Mnemonic technique and Direct Instruction played role in the vocabulary class and how the students having high and low creativity responded and fused them in both techniques.

Table 3.3. The Description of Vocabulary Activity in both Classes

The Vocabulary Class

<table>
<thead>
<tr>
<th>Indicators measured:</th>
<th>1. meaning</th>
<th>2. spelling</th>
<th>3. pronunciation</th>
<th>4. use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technique</td>
<td>Implementing Mnemonic</td>
<td>Implementing Direct Instruction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What is Mnemonic and Direct Instruction?</td>
<td>Mnemonics are memory devices that help learners recall larger pieces of information. Mnemonics rely on associations between easy-to-remember constructs which can be related back to the data that are to be remembered. This is based on the observation that the human mind much more easily remembers spatial, personal, surprising, physical, sexual or humorous or otherwise meaningful information, as compared to retrieving arbitrary sequences. Congos (2005: 1).</td>
<td>Direct Instruction was specifically designed to promote student learning of procedural knowledge and declarative knowledge that can be taught in step-by-step fashion. Direct instruction is usually deductive. That is, the rule or generalization is presented and then illustrated with examples. While this strategy may be considered among the easier to plan and to use, it is clear that effective direct instruction is often more complex than it would first appear (Arends, 1998:66).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empowering students:</td>
<td>1. a teacher provides song to pronounce the words.</td>
<td>1. a teacher asks the students to pronounce the words after the teacher.</td>
<td>1. a teacher asks the students to spell the words based on the words written on the board.</td>
<td>1. a teacher asks the students to practice making a simple sentence.</td>
</tr>
</tbody>
</table>
At the second graders of SDIT Salsabilla Baiturrahman Prambanan, there are two levels of the students’ creativity. They are high and low creativity (B₁ and B₂). In the experimental class, the students were taught by using Mnemonic technique (A₁). In the control class, the students were taught by using Direct Instruction (A₂). Nevertheless, in both classes existed two levels of the students’ creativity. They were taught by using Mnemonic technique and Direct Instruction (A₁B₁, A₂B₁, A₁B₂, and A₂B₂). The students having high creativity and those having low creativity are significantly different in their vocabulary mastery. Thus, it can be concluded that the implementation of the teaching techniques depends upon the level of the students’ creativity.

C. Population, Sample and Sampling

1. Population

Johnson and Christensen (2000: 158) say that population is the set of all elements. The population of this research included all of the second grade students of elementary school of SDIT Salsabilla Biturrahman Prambanan in the academic year 2012/2013. There were two classes of the second grade students which consist of 48 students and each class consists of 24 students.

2. Sample

A sample is a set of elements taken from a larger population (Christensen, 2000: 158). The writer took all of the populations as sample of the research.
Arikunto (2002: 112) states that the researcher can take all of the population if the subject is less than 100 students. Arikunto (1982: 102) states that if the researcher intends to see all the elements in this research area, this kind is called population research. The sample of this research was class II.A and II.B of SDIT Salsabilla Prambanan in the 2012/2013 academic year, each of which consists of 24 students. One class (II.A) was used as the experimental group and the other one (II.B) as the control group.

3. Sampling

Sampling is the process of selecting members of a research sample from a defined population, usually with the intent that the sample accurately represents that population (Gall, 2003: 636). In this research, the researcher used total sampling to get sample from the population because all the population became the sample of this research and the population was less than 100 students. Noko (2009: 2) states that total sampling is a technique for determining the sample by taking all members of population as a respondent or a sample. The researcher determined which one of the two classes will be the experimental group and which one will be the control group by applying lottery.

Each class was divided into two groups, students who have high creativity and those who have low creativity. To classify the students in each class into those who have high and low creativity, the researcher used the median of creativity scores. Sprinthall (1990: 115) states that $Me$ can be used to determine the creativity of the students included high or low.
Besides, Median is said to be the appropriate measure of central tendency when the set of scores is not evenly distributed. \( Me \) is first from the total scores. It means that if the scores of creativity test of the students are same as \( Me \) or more than \( Me \), it can be categorized into high level. While if the scores of creativity test of the students were less than \( Me \), it can be categorized into low level. \( Me \) is the midpoint of the score of students’ creativity test. Therefore, there are 12 students who have high creativity and 12 students who have low creativity in each class. Therefore, there are four groups which can be seen as follows:

\[
\begin{array}{|c|c|}
\hline
\text{Group} & \text{Group Category and Methods} \\
\hline
A_1 & B_1 \text{ Students having high creativity taught using Mnemonic} \\
& B_2 \text{ Students having low creativity taught using Mnemonic} \\
A_2 & B_1 \text{ Students having high creativity taught using direct instruction} \\
& B_2 \text{ Students having low creativity taught using direct instruction} \\
\hline
\end{array}
\]

Both groups were taught with different teaching techniques, one of two classes was taught by using mnemonic while another class was taught by direct instruction. It can be concluded that there are four groups in this research: (1) the students with high creativity taught by using mnemonic; (2) the students with low creativity taught by using mnemonic; (3) the students with high creativity taught by using direct instruction; and (4) the students with low creativity taught by using direct instruction.

**D. Technique of Collecting the Data**

The researcher used test to obtain the data. The test was used to obtain the data of the students’ vocabulary mastery and students’ creativity. The test of
vocabulary was in the multiple choice forms and oral form (indicator of pronunciation). The test must be valid and reliable. Therefore, the test was tried out to know the validity and reliability. The researcher conducted the try-out test at the second grade students of SDIT Baitussalam Prambanan Klaten. That class was choosen because there is no significant difference in vocabulary mastery with the treatment class. It showed that t, of experimental class (1.00) and control class (0.741349) are lower than t, (16.928). It means that there is no significant difference in vocabulary mastery between the try-out class and the treatment class (see appendix 6). The formula of validity and reliability test is as follows:

1. The Items Validity: 

   \[ r_{pbis} = \frac{\overline{X}_t - \overline{X}_i}{s_t} \cdot \frac{p_1}{p_2} \]

   Where:

   \( r_{pbis} \) : Biserial point correlation validity

   \( S_t \) : Standard of deviation

   \( p \) : The test proportion that can answer the correct answer of items

   \( q \) : \( 1 - p \)

   \( \overline{X}_t \) : The average of total score for all testy

   \( \overline{X}_i \) : The average of score testy for the correct answer

The test items are valid if $r_{obtained}$ is higher than $r_{table}$ or $r_{o} > r_{t}$ and invalid if $r_{obtained}$ is lower than $r_{table}$ or $r_{o} < r_{t}$.

The try-out of the vocabulary test consists of 100 items. The result of the try-out showed that there were 40 valid items and 60 invalid items. The researcher used 40 valid items for testing the students’ vocabulary mastery.

2. Reliability: $r_{kk} = \frac{k}{k-1} \left(1 - \frac{\sum pq}{S_t^2}\right)$

Where:

- $r_{kk}$: Kuder–Richardson formula 20 reliability coefficient
- $k$: the number of test items
- $p$: the proportion of test takers who pass the items
- $q$: the proportion of test takers who fail the items
- $S_t^2$: the variance of the total test scores

Arikunto (2002: 163)

The instrument is reliable if $r_{obtained}$ or $r_{kk}$ is higher than $r_{table}$ or $r_{o} > r_{t}$. The analysis of the reliability of the vocabulary test showed that $r_{o}$ is 0.813. Because $r_{o}$ (0.813) is higher than $r_{t}$ (0.404), it can be concluded that the instrument is reliable (see appendix 7).

The form of creativity test was an essay test. To know whether the test is readable or not, the writer used readability test. Readability test is used to know whether the instruction of creativity test is clear, understandable, or not and it can anticipate some cases in which students failed to do the test due to their inability...
to understand the instructions that are given. To know whether the test is readable or not, if 75% of respondents give “yes” answer to each item of readability test, the vocabulary test is considered being readable.

Hughes (1989: 39-40) mention some factors to write good instructions: (1) the instruction should be clear and explicit; (2) it should avoid the supposition that students all know what is intended; and (3) the test should not rely on the students’ power of telepathy to elicit the desired behavior.

E. Technique for Analyzing the Data

The writer used a descriptive analysis and inferential statistic in this research. The descriptive is used to know the mean, mode, median, and standard deviation of score of vocabulary test. Before analyzing the data by using inferential analysis, the normality and homogeneity test should be conducted. The normality test uses Lilliefors test (Lo) and homogeneity uses chi-square.

1. Normality Test

The normality test is done to determine whether the data are in normal distribution or not. The results of students’ scores in vocabulary test are analyzed by using Lilliefors test (Lo), with the criteria if Lo <Lt, the data are in normal distribution.

2. Homogeneity Test

To test the homogeneity of the population variance, chi-square is used. $\chi^2_o$ is lower than $\chi^2_t$, it can be concluded that the data are homogeneous. Meanwhile, the inferential statistic will be used to test the hypothesis. The
data were analyzed using multifactor analysis of variance 2x2. Ho is rejected if $F_o > F_t$. If Ho is rejected the analysis is continued using Tukey test. The design of multifactor analysis of variance (ANOVA) is as follows:

Table 3.5. Design for ANOVA

<table>
<thead>
<tr>
<th>2nd effect</th>
<th>Mnemonic</th>
<th>Direct Instruction</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st effect</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High creativity</td>
<td>Group 1</td>
<td>$\Sigma X C_1 R_1$</td>
<td>$\Sigma X C_1 R_1$</td>
</tr>
<tr>
<td></td>
<td>$\bar{X} C_1 R_1$</td>
<td>$\bar{X} C_1 R_1$</td>
<td>$\bar{X} R_1$</td>
</tr>
<tr>
<td>Low creativity</td>
<td>Group 2</td>
<td>$\Sigma X C_2 R_2$</td>
<td>$\Sigma X C_2 R_2$</td>
</tr>
<tr>
<td></td>
<td>$\bar{X} C_2 R_2$</td>
<td>$\bar{X} C_2 R_2$</td>
<td>$\bar{X} R_2$</td>
</tr>
<tr>
<td>Total</td>
<td>$\Sigma X C_1$</td>
<td>$\Sigma X C_2$</td>
<td>$\Sigma X t$</td>
</tr>
<tr>
<td></td>
<td>$\bar{X} C_1$</td>
<td>$\bar{X} C_2$</td>
<td>$\bar{X} t$</td>
</tr>
</tbody>
</table>

**Note:**

Then, the steps used to calculate 2x2 ANOVA are follows:

a. The total sum of squares:

$$\sum x_i^2 = \sum X_i^2 - \frac{\sum X_i^2}{N}$$

b. The sum of squares between groups:

$$\sum x_b^2 = \frac{\sum X_1^2}{n_1} + \frac{\sum X_2^2}{n_2} + \frac{\sum X_3^2}{n_3} + \frac{\sum X_4^2}{n_4} - \frac{\sum X_i^2}{N}$$

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c. The sum of squares within groups:
\[ \sum x_w^2 = \sum x_i^2 - \sum x_p^2 \]
d. The sum between-columns of squares:
\[ \sum x_{bc}^2 = \frac{\sum X_{c1}^2}{n_{c1}} + \frac{\sum X_{c2}^2}{n_{c2}} - \frac{\sum X_1^2}{N} \]
e. The sum between-rows of squares:
\[ \sum x_{br}^2 = \frac{\sum X_{r1}^2}{n_{r1}} + \frac{\sum X_{r2}^2}{n_{r2}} - \frac{\sum X_2^2}{N} \]
f. The sum of squares interaction:
\[ \sum x_{in} = \sum x_p - \sum x_{bc}^2 - \sum x_{br}^2 \]
df for between – columns sum of squares = C – 1

df for between – rows sum of squares = R – 1

df for interaction (C-1) (R-1)

df for between – groups sum of squares = G – 1

df for within – columns sum of squares = \( \sum \phi - 1 \)

df for total sum of square = N – 1

C = the number of columns

R = the number of rows

G = the number of groups

n = the number of subject of one groups

N = the number of subject of all groups

Below is the table of summarizing of 2 x 2 ANOVA:
After analyzing the data by ANOVA, the writer used Tukey Test. Tukey test is used in conjunction with an ANOVA to find which means are significantly different from one another. In short, Tukey test is to know which group is better (mnemonic or direct instruction).

a. Mnemonic compared with direct instruction in teaching vocabulary.
   \[ q = \frac{\overline{X}_{c1} - \overline{X}_{c2}}{\sqrt{\text{error variance}/n}} \]

b. High creativity is compared with low creativity.
   \[ q = \frac{\overline{X}_{r1} - \overline{X}_{r2}}{\sqrt{\text{error variance}/n}} \]

c. Mnemonic compared with direct instruction in teaching vocabulary for students having high creativity.
   \[ q = \frac{\overline{X}_{c1r1} - \overline{X}_{c2r1}}{\sqrt{\text{error variance}/n}} \]

d. Mnemonic compared with direct instruction in teaching vocabulary for students having low creativity
   \[ q = \frac{\overline{X}_{c1r1} - \overline{X}_{c2r1}}{\sqrt{\text{error variance}/n}} \quad \text{or} \quad q = \frac{\overline{X}_{c2r2} - \overline{X}_{c1r2}}{\sqrt{\text{error variance}/n}} \]

F. Statistical Hypothesis

The writer formulated the statistical hypothesis that consists of null hypothesis (\(H_0\)) and alternative hypothesis (\(H_a\)). The statistical hypotheses are as follows:

\[ \text{commit to user} \]
1. The difference in vocabulary mastery between students who are taught by mnemonic and students who are taught by using direct instruction.

\[ H_0^1 : \mu_{A1} = \mu_{A2} \]
\[ H_a^1 : \mu_{A1} > \mu_{A2} \]

a. \( H_0^1 \): There is no significant difference in vocabulary mastery between the students who are taught by mnemonic and students who are taught by direct instruction.

b. \( H_a^1 \): The students who are taught by using mnemonic have better vocabulary mastery than students who are taught by direct instruction.

2. The difference in vocabulary mastery between students who have low level of creativity with the students with high level of creativity in vocabulary mastery.

\[ H_0^2 : \mu_{B1} = \mu_{B2} \]
\[ H_a^2 : \mu_{B1} > \mu_{B2} \]

a. \( H_0^2 \): There is no significant difference in vocabulary mastery between the students who have high level of creativity and students who have low level of creativity.

b. \( H_a^2 \): The students who have high level of creativity have better vocabulary mastery than the students who have low level of creativity.

3. The interaction between teaching techniques and students ‘creativity in teaching vocabulary.

\[ H_0^3 : \mu_A \times \mu_B = 0 \]
\[ H_a^3 : \mu_A \times \mu_B \neq 0 \]
a. $H_03$: There is no interaction between teaching techniques and students’ creativity in vocabulary. It means that the effect of students’ creativity on vocabulary mastery does not depend on teaching strategy.

b. $H_3$: There is an interaction effect between teaching techniques and students’ creativity in teaching vocabulary. It means that the effect of teaching techniques on vocabulary mastery depends on level of students’ creativity.

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CHAPTER IV

RESEARCH RESULT

In this chapter the researcher discusses the result of the research. The result is divided into four discussions as follows: research implementation, the description of the data, normality and homogeneity, hypothesis test, and the discussion of the result of the study.

A. Research Implementation

This research was conducted at the second graders of SDIT Salsabilla Baiturrahman Prambanan in the academic year of 2012/2013. Which is located on Pemukti Baru street Prambanan Klaten from 7 July 2012 to 3 September 2012. There were 48 students divided into two classes, 24 students of II A for experimental class and 24 students of II B for control class. The writer conducted the experiment that is conferring a treatment by using Mnemonic Technique in teaching Vocabulary for experimental class and using Direct Instruction in teaching vocabulary for control class. This research was focus on one meeting for introduction, eight treatments, and one meeting for post test to each class. This experiment was conducted in order to determine whether there is a significant different in vocabulary mastery between experimental and control class. The clear description of conducting treatment to both experimental and control class can be seen in the table as follow:
Table. 4.1 Treatments for Experiment Class

<table>
<thead>
<tr>
<th>Activities</th>
<th>Material</th>
<th>Date</th>
<th>Learning process</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Meeting</td>
<td>“number”</td>
<td>July 7th 2012</td>
<td>1. The teacher writes down the song lyric that is related to the material given.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Asking students to sing the song till they have memorized that song.</td>
</tr>
<tr>
<td>Second Meeting</td>
<td>“number”</td>
<td>July 14th 2012</td>
<td>3. Reinforcement the words (pronouncing the words correctly then asking the students to pronounce the word loudly).</td>
</tr>
<tr>
<td>Third Meeting</td>
<td>“animals”</td>
<td>July 21st 2012</td>
<td>4. The teacher and students create the key words that are appropriate with each word provided.</td>
</tr>
<tr>
<td>fourth Meeting</td>
<td>“animals”</td>
<td>July 28th 2012</td>
<td>a. Showing the pictures that are related with each words,</td>
</tr>
<tr>
<td>Fifth Meeting</td>
<td>“vegetables”</td>
<td>August 4th 2012</td>
<td>b. Asking the student to save and imagine the picture in their mind, and</td>
</tr>
<tr>
<td>Sixth Meeting</td>
<td>“vegetables”</td>
<td>August 11th 2012</td>
<td>c. Asking the students to produce the definitions.</td>
</tr>
<tr>
<td>Seventh Meeting</td>
<td>“Things in the bedroom”</td>
<td>August 18th 2012</td>
<td>5. The teacher asks the students to create words of person’s name or thing together by taking from the first or more than one letter of each word in the list of words.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7. In pairs, the teacher asks the students to practice the words by guiding them into creating the simple sentences.</td>
</tr>
</tbody>
</table>

The students of class II.A for experimental class was taught by Mnemonic technique. The materials which is given related to number (1-20), animals, vegetables, and things in the bedroom, in which the materials given are based on the syllabus of the treatment school. For the first meeting to second meeting, the writer gives lesson about “number”. For the third to fourth meeting, the writer gives lesson about “animals”. For the fifth to sixth
meeting, the writer gives lesson about “vegetables”, and for the seventh to eight meeting the writer gives lesson about “things in the bedroom. After the material was explained, the teacher ask the students to pronounce the words through the song, spell the words by creating the words, find the meaning by creating the key words and imagine it in their mind. Finally, the students practice using the words in pair.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Material</th>
<th>Date</th>
<th>Learning Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Meeting</td>
<td>“number”</td>
<td>July 7th 2012</td>
<td>1. Describing the lesson and gives background information.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. Explaining the list of words that are related with the topic.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. Explaining and demonstrating how to pronounce each word given and asking the</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>students to repeat pronouncing after the teacher.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. Writing down the list of words about “number” and asking them to copy it on</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>their note book.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5. Reciting the definition of words.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>6. Explaining how to make a simple sentences by using language function.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>7. In group, the teacher asks the students to present the words that they have</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>learned, including their meaning, spelling, pronouncing, and using.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>8. Giving feedback and corrective information of the students’ presentations.</td>
</tr>
<tr>
<td>Second Meeting</td>
<td>“number”</td>
<td>July 14th 2012</td>
<td></td>
</tr>
<tr>
<td>Third Meeting</td>
<td>“animals”</td>
<td>July 21st 2012</td>
<td></td>
</tr>
<tr>
<td>Fourth Meeting</td>
<td>“animals”</td>
<td>July 28th 2012</td>
<td></td>
</tr>
<tr>
<td>Fifth Meeting</td>
<td>“vegetables”</td>
<td>August 4th 2012</td>
<td></td>
</tr>
<tr>
<td>Sixth Meeting</td>
<td>“vegetables”</td>
<td>August 11th 2012</td>
<td></td>
</tr>
<tr>
<td>Seventh Meeting</td>
<td>“Things in the bedroom”</td>
<td>August 18th 2012</td>
<td></td>
</tr>
<tr>
<td>Eighth Meeting</td>
<td>“Things in the bedroom”</td>
<td>August 25th 2012</td>
<td></td>
</tr>
</tbody>
</table>

The students of class II.B for experimental class was taught by using Direct Instruction. The material which is used divided into two part, short expression and long expression. For the first meeting to fifth meeting the writer use short expression and for sixth to eighth meeting use long expressions. After the material was explained, the teacher ask the students to pronounce the words after the teacher, spell the words by looking at the board, find the meaning by reciting the words, and the students practice using the words in front of the class.
From the explanation above it can see that both of class has the same topics but different technique. At the end of the experiment, the writer conducted a post test for both of class in different time. The writers used the same test for both. For experimental class the test was conducted on September 2nd, 2012. For control class the test was conducted on September 3rd, 2012. The test results were used as the data in this study to determine whether there is significant different in students’ vocabulary mastery between experimental group and control group.

B. Data Description

The data presented in this point are related to the result of the vocabulary test that covers the mean, mode, median, standard deviation, and frequency distribution then completed by histogram and polygon. The descriptions of the data are classified based on the number of the groups analyzed. The groups are divided into eight groups as follows:

1. The scores of the students in the experimental class who are taught using mnemonic (A₁).
2. The scores of the students in the control class who are taught using Direct Instruction (A₂).
3. The scores of the students having high creativity (B₁).
4. The scores of the students having low creativity (B₂).
5. The scores of the students having high creativity who are taught using Mnemonic (A₁B₁).
6. The scores of the students having high creativity who are taught using Direct Instruction (A₂B₁).
7. The scores of the students having low creativity who are taught using Mnemonic \((A_1 B_2)\).

8. The scores of the students having low creativity who are taught using Direct Instruction \((A_2 B_2)\).

The data of each group presented above are described as follows:

1. **The scores of the students in the experimental class who are taught using Mnemonic \((A_1)\).**

   The descriptive analysis of the data of \(A_1\) shows that the scores are 96, 96, 92, 92, 88, 84, 84, 80, 80, 76, 72, 68, 64, 64, 60, 56, 56, 52, 52, 48, and 44. The mean is 72.75, the mode is 86.7, the median is 78, and the standard deviation is 3.42. Then, the frequency distribution, histogram, and polygon are presented in the table 4.3 and figure 4.3 as follows:

<table>
<thead>
<tr>
<th>Class Limits</th>
<th>Class Boundaries</th>
<th>Midpoint</th>
<th>Tally</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>44-52</td>
<td>43.5-52.5</td>
<td>48</td>
<td>III</td>
<td>4</td>
</tr>
<tr>
<td>53-61</td>
<td>52.5-61.5</td>
<td>57</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>62-70</td>
<td>61.5-70.5</td>
<td>66</td>
<td>III</td>
<td>4</td>
</tr>
<tr>
<td>71-79</td>
<td>70.5-79.5</td>
<td>75</td>
<td>II</td>
<td>2</td>
</tr>
<tr>
<td>80-88</td>
<td>79.5-88.5</td>
<td>84</td>
<td>IIIII I</td>
<td>6</td>
</tr>
<tr>
<td>89-97</td>
<td>88.5-97.5</td>
<td>93</td>
<td>IIIII</td>
<td>5</td>
</tr>
</tbody>
</table>

|            |                  |          |       |            | Percentage |
|            |                  |          |       |            | 16.67%     |
|            |                  |          |       |            | 12.50%     |
|            |                  |          |       |            | 16.67%     |
|            |                  |          |       |            | 8.33%      |
|            |                  |          |       |            | 25.00%     |
|            |                  |          |       |            | 20.83%     |
|            |                  |          |       |            | 100%       |

The data of each group presented above are described as follows:

1. **The scores of the students in the experimental class who are taught using Mnemonic \((A_1)\).**

   The descriptive analysis of the data of \(A_1\) shows that the scores are 96, 96, 92, 92, 88, 84, 84, 80, 80, 76, 72, 68, 64, 64, 60, 56, 56, 52, 52, 48, and 44. The mean is 72.75, the mode is 86.7, the median is 78, and the standard deviation is 3.42. Then, the frequency distribution, histogram, and polygon are presented in the table 4.3 and figure 4.3 as follows:

<table>
<thead>
<tr>
<th>Class Limits</th>
<th>Class Boundaries</th>
<th>Midpoint</th>
<th>Tally</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>44-52</td>
<td>43.5-52.5</td>
<td>48</td>
<td>III</td>
<td>4</td>
</tr>
<tr>
<td>53-61</td>
<td>52.5-61.5</td>
<td>57</td>
<td>III</td>
<td>3</td>
</tr>
<tr>
<td>62-70</td>
<td>61.5-70.5</td>
<td>66</td>
<td>III</td>
<td>4</td>
</tr>
<tr>
<td>71-79</td>
<td>70.5-79.5</td>
<td>75</td>
<td>II</td>
<td>2</td>
</tr>
<tr>
<td>80-88</td>
<td>79.5-88.5</td>
<td>84</td>
<td>IIIII I</td>
<td>6</td>
</tr>
<tr>
<td>89-97</td>
<td>88.5-97.5</td>
<td>93</td>
<td>IIIII</td>
<td>5</td>
</tr>
</tbody>
</table>

|            |                  |          |       |            | Percentage |
|            |                  |          |       |            | 16.67%     |
|            |                  |          |       |            | 12.50%     |
|            |                  |          |       |            | 16.67%     |
|            |                  |          |       |            | 8.33%      |
|            |                  |          |       |            | 25.00%     |
|            |                  |          |       |            | 20.83%     |
|            |                  |          |       |            | 100%       |
The scores of the students in the control class who are taught using Direct Instruction ($A_2$)

The descriptive analysis of the data of $A_2$ shows that the score are 96, 92, 92, 88, 84, 84, 80, 80, 76, 76, 76, 72, 64, 64, 64, 64, 60, 56, 56, 52, 48, 48, 44, 44, and 40. The mean is 68.67, the mode is 82.83, the median is 71.5 and the standard deviation is 3.63. Then, the frequency distribution, histogram, and polygon are presented in the table 4.4 and figure 4.4 as follow:

Table 4.4. The Frequency Distribution of the Data $A_2$

<table>
<thead>
<tr>
<th>Class Limits</th>
<th>Class Boundaries</th>
<th>Midpoint</th>
<th>Tally</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-49</td>
<td>39.5-49.5</td>
<td>44.5</td>
<td>I</td>
<td>5</td>
<td>20.83%</td>
</tr>
<tr>
<td>50-59</td>
<td>49.5-59.5</td>
<td>54.5</td>
<td>I I I I</td>
<td>3</td>
<td>12.5%</td>
</tr>
<tr>
<td>60-69</td>
<td>59.5-69.5</td>
<td>64.5</td>
<td>I I I</td>
<td>4</td>
<td>16.67%</td>
</tr>
<tr>
<td>70-79</td>
<td>69.5-78.5</td>
<td>74.5</td>
<td>I I I</td>
<td>4</td>
<td>16.67%</td>
</tr>
<tr>
<td>80-89</td>
<td>79.5-89.5</td>
<td>84.5</td>
<td>I I I I</td>
<td>5</td>
<td>20.83%</td>
</tr>
<tr>
<td>90-99</td>
<td>98.5-99.5</td>
<td>94.5</td>
<td>I I I</td>
<td>3</td>
<td>12.5%</td>
</tr>
</tbody>
</table>

Total: 24 100%
3. The Score of Students Having High Creativity (B₁)

The descriptive analysis of the data of B₁ shows that the scores are 96, 96, 96, 92, 92, 92, 92, 92, 92, 88, 88, 84, 84, 84, 84, 84, 84, 80, 80, 80, 80, 76, 76, 76, 76 and 72. The mean is 80.89. The mode is 79, the median is 82.38, and the standard deviation is 3.35. Then, the frequency distribution, histogram, and polygon are presented in the table 4.5 and figure 4.5 as follows:

Table 4.5. The Frequency Distribution of the Data B₁

<table>
<thead>
<tr>
<th>Class Limits</th>
<th>Class Boundaries</th>
<th>Midpoint</th>
<th>Tally</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>71-75</td>
<td>70.5-75.5</td>
<td>73</td>
<td>I</td>
<td>1</td>
<td>4.17%</td>
</tr>
<tr>
<td>76-80</td>
<td>75.5-80.5</td>
<td>78</td>
<td>III</td>
<td>III</td>
<td>8</td>
</tr>
<tr>
<td>81-85</td>
<td>80.5-85.5</td>
<td>83</td>
<td>I</td>
<td>I</td>
<td>5</td>
</tr>
<tr>
<td>86-90</td>
<td>85.5-90.5</td>
<td>85.2</td>
<td>II</td>
<td>2</td>
<td>8.33%</td>
</tr>
<tr>
<td>91-95</td>
<td>90.5-95.5</td>
<td>93</td>
<td>III</td>
<td>5</td>
<td>20.83%</td>
</tr>
<tr>
<td>96-100</td>
<td>95.5-100.5</td>
<td>98</td>
<td>III</td>
<td>3</td>
<td>12.30%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24</td>
<td>100%</td>
</tr>
</tbody>
</table>
Figure 4.3: The Histogram and Polygon of the Data $B_1$

4. The Score of Students Having Low Creativity ($B_2$)

The descriptive analysis of the data of $B_2$ shows that the score are 72, 68, 64, 64, 64, 64, 64, 60, 60, 56, 56, 56, 56, 56, 52, 52, 52, 48, 48, 48, 44, 44, 44, and 40. The mean is 56.5. The mode is 66.17, the median is 67.79, and the standard deviation is 1.94. Then, the frequency distribution, histogram, and polygon are presented in the table 4.6 and figure 4.6 as follows:

<table>
<thead>
<tr>
<th>Class Limits</th>
<th>Class Boundaries</th>
<th>Midpoint</th>
<th>Tally</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-45</td>
<td>39.5-45.5</td>
<td>42.5</td>
<td>III</td>
<td>4</td>
<td>16.67%</td>
</tr>
<tr>
<td>46-51</td>
<td>45.5-51.5</td>
<td>48.5</td>
<td>III</td>
<td>3</td>
<td>12.50%</td>
</tr>
<tr>
<td>52-57</td>
<td>51.5-57.5</td>
<td>54.5</td>
<td>IIIII III</td>
<td>7</td>
<td>29.17%</td>
</tr>
<tr>
<td>58-63</td>
<td>57.5-63.5</td>
<td>60.5</td>
<td>II</td>
<td>2</td>
<td>8.33%</td>
</tr>
<tr>
<td>64-69</td>
<td>63.5-69.5</td>
<td>66.5</td>
<td>IIIII II</td>
<td>7</td>
<td>29.17%</td>
</tr>
<tr>
<td>70-75</td>
<td>69.5-75.5</td>
<td>72.5</td>
<td>I</td>
<td>1</td>
<td>4.17%</td>
</tr>
</tbody>
</table>

*Commit to use*
5. The scores of the students having high creativity who are taught using Mnemonic (A\textsubscript{1}B\textsubscript{1})

The descriptive analysis of the data of A\textsubscript{1}B\textsubscript{1} shows that the score are 96, 96, 92, 92, 88, 84, 84, 84, 80, 80, and 76. The mean is 87.17. The mode is 80.5, the median is 80.5, and the standard deviation is 2.30. Then, the frequency distribution, histogram, and polygon are presented in the table 4.7 and figure 4.7 as follows:

Table 4.7. The Frequency Distribution of the Data B\textsubscript{2}

<table>
<thead>
<tr>
<th>Class Limits</th>
<th>Class Boundaries</th>
<th>Midpoint</th>
<th>Tally</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>76-80</td>
<td>75.5-80.5</td>
<td>78</td>
<td>III</td>
<td>3</td>
<td>25.00%</td>
</tr>
<tr>
<td>81-85</td>
<td>80.5-85.5</td>
<td>83</td>
<td>III</td>
<td>3</td>
<td>25.00%</td>
</tr>
<tr>
<td>86-90</td>
<td>85.5-90.5</td>
<td>88</td>
<td>I</td>
<td>1</td>
<td>8.33%</td>
</tr>
<tr>
<td>91-95</td>
<td>90.5-95.5</td>
<td>93</td>
<td>III</td>
<td>3</td>
<td>25.00%</td>
</tr>
<tr>
<td>96-100</td>
<td>95.5-100.5</td>
<td>98</td>
<td>II</td>
<td>2</td>
<td>16.67%</td>
</tr>
</tbody>
</table>

commit to user 12 100%
6. The scores of the students having high creativity who are taught using Direct Instruction (A₂B₁)

The descriptive analysis of the data of A₂B₁ shows that the scores are 96, 92, 92, 88, 84, 84, 80, 80, 76, 76, 76, and 72. The mean is 82.75, the mode is 74.83, the median is 79, and the standard deviation is 2.5. Then, the frequency distribution, histogram, and polygon are presented in the table 4.8 and figure 4.8 as follows:

Table 4.8. The Frequency Distribution of the Data A₂B₁

<table>
<thead>
<tr>
<th>Class Limits</th>
<th>Class Boundaries</th>
<th>Midpoint</th>
<th>Tally</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>72-76</td>
<td>71.5-76.5</td>
<td>74</td>
<td>III</td>
<td>4</td>
<td>33.3%</td>
</tr>
<tr>
<td>77-81</td>
<td>76.5-81.5</td>
<td>79</td>
<td>III</td>
<td>2</td>
<td>16.67%</td>
</tr>
<tr>
<td>82-86</td>
<td>81.5-86.5</td>
<td>84</td>
<td>II</td>
<td>2</td>
<td>16.67%</td>
</tr>
<tr>
<td>87-91</td>
<td>86.5-91.5</td>
<td>89</td>
<td>I</td>
<td>1</td>
<td>8.33%</td>
</tr>
<tr>
<td>92-96</td>
<td>91.5-96.5</td>
<td>94</td>
<td>III</td>
<td>3</td>
<td>25.00%</td>
</tr>
</tbody>
</table>

Total: 12 100%
7. The scores of the students having low creativity who are taught using Mnemonic (A₁B₂)

The descriptive analysis of the data of A₁B₂ shows that the scores are 72, 68, 64, 64, 64, 60, 56, 56, 52, 52, 48, and 44. The mean is 59, the mode is 61.5, the median is 59.5, and the standard deviation is 2.49. Then, the frequency distribution, histogram, and polygon are presented in the table 4.9 and figure 4.9 as follows:

<table>
<thead>
<tr>
<th>Class Limits</th>
<th>Class Boundaries</th>
<th>Midpoint</th>
<th>Tally</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>44-49</td>
<td>43.5-49.5</td>
<td>46.5</td>
<td>II</td>
<td>2</td>
<td>16.67%</td>
</tr>
<tr>
<td>50-55</td>
<td>49.5-55.5</td>
<td>52.5</td>
<td>II</td>
<td>2</td>
<td>16.67%</td>
</tr>
<tr>
<td>56-61</td>
<td>55.5-61.5</td>
<td>58.5</td>
<td>III</td>
<td>3</td>
<td>25.00%</td>
</tr>
<tr>
<td>62-67</td>
<td>61.5-67.5</td>
<td>64.5</td>
<td>III</td>
<td>3</td>
<td>25.00%</td>
</tr>
<tr>
<td>68-73</td>
<td>67.5-73.5</td>
<td>70.5</td>
<td>II</td>
<td>2</td>
<td>16.67%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
8. The scores of the students having low creativity who are taught using Direct Instruction (A\textsubscript{1}B\textsubscript{2})

The descriptive analysis of the data of A\textsubscript{2}B\textsubscript{2} shows that the scores are 64, 64, 64, 60, 56, 52, 48, 48, 44, 44, and 40. The mean is 52.83, the mode is 61.17, the median is 57, and the standard deviation is 2.34. Then, the frequency distribution, histogram, and polygon are presented in the table 4.10 and figure 4.10 as follows:

Table 4.10. The Frequency Distribution of the Data A\textsubscript{2}B\textsubscript{2}

<table>
<thead>
<tr>
<th>Class Limits</th>
<th>Class Boundaries</th>
<th>Midpoint</th>
<th>Tally</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-48</td>
<td>39.5-44.5</td>
<td>42</td>
<td>III</td>
<td>3</td>
<td>25.00%</td>
</tr>
<tr>
<td>45-49</td>
<td>44.5-49.5</td>
<td>47</td>
<td>II</td>
<td>2</td>
<td>16.67%</td>
</tr>
<tr>
<td>50-54</td>
<td>49.5-54.5</td>
<td>52</td>
<td>I</td>
<td>1</td>
<td>8.33%</td>
</tr>
<tr>
<td>55-59</td>
<td>54.5-59.5</td>
<td>57</td>
<td>II</td>
<td>2</td>
<td>16.67%</td>
</tr>
<tr>
<td>60-64</td>
<td>59.5-64.5</td>
<td>62</td>
<td>III</td>
<td>4</td>
<td>33.33%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12</td>
<td>100.00%</td>
</tr>
</tbody>
</table>
C. Normality and Homogeneity Test

Normality and homogeneity test must be done before analyzing the data by using inferential analysis. The normality test functions to know whether the data is in normal distribution or not and the homogeneity test is to know whether the data are homogeneous or not. Both normality and homogeneity tests are presented in the following section:

1. Normality Test

The sample is in normal distribution if $L_o$ (L obtained) is lower than $L_t$ (L table) at the level of significance $\alpha = 0.05$. L stands for Lilliefors.

Figure 4.8. The Histogram and Polygon of the Data $A_2B_2$
Table 4.11. The Result of Normality Test

<table>
<thead>
<tr>
<th>No</th>
<th>Data</th>
<th>The Number of Sample</th>
<th>L obtained ($L_o$)</th>
<th>L table ($L_t$)</th>
<th>Alfa ($\alpha$)</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A₁</td>
<td>24</td>
<td>0.1697</td>
<td>0.173</td>
<td>0.05</td>
<td>Normal</td>
</tr>
<tr>
<td>2</td>
<td>A₂</td>
<td>24</td>
<td>0.1526</td>
<td>0.173</td>
<td>0.05</td>
<td>Normal</td>
</tr>
<tr>
<td>3</td>
<td>B₁</td>
<td>24</td>
<td>0.1078</td>
<td>0.173</td>
<td>0.05</td>
<td>Normal</td>
</tr>
<tr>
<td>4</td>
<td>B₂</td>
<td>24</td>
<td>0.1408</td>
<td>0.173</td>
<td>0.05</td>
<td>Normal</td>
</tr>
<tr>
<td>5</td>
<td>A₁B₁</td>
<td>12</td>
<td>0.1030</td>
<td>0.242</td>
<td>0.05</td>
<td>Normal</td>
</tr>
<tr>
<td>6</td>
<td>A₂B₁</td>
<td>12</td>
<td>0.1056</td>
<td>0.242</td>
<td>0.05</td>
<td>Normal</td>
</tr>
<tr>
<td>7</td>
<td>A₁B₂</td>
<td>12</td>
<td>0.0903</td>
<td>0.242</td>
<td>0.05</td>
<td>Normal</td>
</tr>
<tr>
<td>8</td>
<td>A₂B₂</td>
<td>12</td>
<td>0.1384</td>
<td>0.242</td>
<td>0.05</td>
<td>Normal</td>
</tr>
</tbody>
</table>

2. Homogeneity Test

This test is conducted to know whether the data are homogenous. If $\chi_o^2$ is lower than $\chi_t^2$ at the level of significance $\alpha = 0.5$ (0.05), it can be concluded that the data are homogenous. To be clearer the data are as follows.

Table 4.12. The Result of Homogeneity Test

<table>
<thead>
<tr>
<th>Sample</th>
<th>Df</th>
<th>$1/(df)$</th>
<th>$s_i^2$</th>
<th>logs$_i^2$</th>
<th>(df)logs$_i^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11</td>
<td>0.09091</td>
<td>44</td>
<td>1.64345</td>
<td>18.0780</td>
</tr>
<tr>
<td>2</td>
<td>11</td>
<td>0.09091</td>
<td>71.1515</td>
<td>1.85218</td>
<td>20.3740</td>
</tr>
<tr>
<td>3</td>
<td>11</td>
<td>0.09091</td>
<td>58.5455</td>
<td>1.76749</td>
<td>19.4424</td>
</tr>
<tr>
<td>4</td>
<td>11</td>
<td>0.09091</td>
<td>73.6370</td>
<td>1.86745</td>
<td>20.5419</td>
</tr>
<tr>
<td></td>
<td>44</td>
<td>0.36364</td>
<td></td>
<td></td>
<td>78.4364</td>
</tr>
</tbody>
</table>

$\chi_o^2 = (\sum_{i=1}^{4} 10^{-4} \sum_{i=1}^{4} \Phi_i - 1) \ log s_i^2$

$\chi_o^2 = (2.3026)(78.8185 - 78.4364) = 0.8798$

$\chi_t^2 (0.05) = 7.815$
Based on the result of the calculation above, it can be seen that the $\chi^2_0$ (0.8798) is lower than $\chi^2_t$ (7.815). Thus, it can be concluded that the data are homogenous.

D. Hypothesis Test

After the result of normality and homogeneity test are calculated and fulfilled, hypothesis test can be done. The data analysis is done by using multifactor analysis of variance (ANOVA). $H_0$ is rejected if $F_0 > F_t$ ($F_0$ is higher than $F_t$). It means that there is a significant difference. After knowing that $H_0$ is rejected, the further analysis is done to know the mean difference between the two groups (Group A and group B) and cells using Tukey test. Furthermore, to know which group is better, the mean scores of the groups and cells are compared. Both ANOVA and Tukey Test are presented as follows:

Table 4.13. Table of Multifactor Analysis of Variance (ANOVA)

<table>
<thead>
<tr>
<th>TEACHING TECHNIQUE</th>
<th>M (A₁)</th>
<th>DI (A₂)</th>
<th>TOTAL ROWS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CREATIVITY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIGH (B₁)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>76</td>
<td>80</td>
<td>84</td>
<td>84</td>
</tr>
<tr>
<td>72</td>
<td>76</td>
<td>76</td>
<td>76</td>
</tr>
<tr>
<td>$\sum X_{r₁} = 2040$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$\bar{X}_{r₁} = 85$</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*commit to user*
### 1. Summary of Multifactor Analysis of Variance

Table 4.14. Multifactor Analysis of Variance

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>SS</th>
<th>Df</th>
<th>MS</th>
<th>$F_o$</th>
<th>$F_{(0.5)}$</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Columns</td>
<td>243.04</td>
<td>1</td>
<td>243.04</td>
<td>5.523636</td>
<td>4.08</td>
<td>Significant</td>
</tr>
<tr>
<td>Between Rows</td>
<td>10208.37</td>
<td>1</td>
<td>10208.37</td>
<td>232.0084</td>
<td>4.08</td>
<td>Significant</td>
</tr>
<tr>
<td>Columns by Rows (Interaction)</td>
<td>302.89</td>
<td>1</td>
<td>302.89</td>
<td>6.883864</td>
<td>4.08</td>
<td>Significant</td>
</tr>
<tr>
<td>Between Groups</td>
<td>10454.3</td>
<td>3</td>
<td>3481.44</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Within Groups</td>
<td>2721.4</td>
<td>44</td>
<td>61.85</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>13175.7</td>
<td>47</td>
<td></td>
<td></td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>
Based on the above table, it can be concluded that:

a) Because $F_o$ between columns (5.523636) is higher than $F_t$ at the level of significance $\alpha = 0.05$ (4.26), so the difference between columns is significant. It means that the null hypothesis ($H_0$) which states that there is no significant difference in teaching vocabulary mastery between using Mnemonic and using Direct Instruction is rejected. Then, because the mean of $A_1$ (72.64) is higher than that of $A_2$ (68.17), it can be concluded that mnemonic is more effective than Direct Instruction to teach vocabulary.

b) Because $F_o$ between rows (232.0084) is higher than $F_t$ at the level of significance $\alpha = 0.05$ (4.26), so the difference between rows is significant. It means that the null hypothesis ($H_0$) which states that there is no significant difference in vocabulary mastery between the students who have high level of creativity and students who have low level of creativity is rejected. Then, because the mean of $B_1$ (85) is higher than $B_2$ (55.83), it can be concluded that the students having high creativity have better vocabulary mastery than those having low creativity.

c) Because $F_o$ columns by rows (6.883864) is higher than $F_t$ at the level of significance $\alpha = 0.05$ (4.08), $H_o$ is rejected and there is an interaction between learning techniques and students’ creativity. Thus, it can be concluded that the effectiveness of learning techniques to teach vocabulary depends on the level of students’ creativity.
2. Summary of Tukey Test

The summary and elaboration of Tukey Test result is presented below:

Table 4.15. Summary of Tukey Test

<table>
<thead>
<tr>
<th>Between group</th>
<th>$q_o$</th>
<th>$q_t$ (0.05)</th>
<th>Category</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>$A_1 - A_2$</td>
<td>3.96</td>
<td>2.92</td>
<td>Significant</td>
<td>$A_1 &gt; A_2$</td>
</tr>
<tr>
<td>$B_1 - B_2$</td>
<td>18.26</td>
<td>2.92</td>
<td>Significant</td>
<td>$B_1 &gt; B_2$</td>
</tr>
<tr>
<td>$A_1B_1 - A_2B_1$</td>
<td>3.52</td>
<td>3.08</td>
<td>Significant</td>
<td>$A_1B_1 &gt; A_2B_1$</td>
</tr>
<tr>
<td>$A_1B_2 - A_2B_2$</td>
<td>2.17</td>
<td>3.08</td>
<td>Not Significant</td>
<td>$A_1B_2 &lt; A_2B_2$</td>
</tr>
</tbody>
</table>

Based on the summary of Tukey test, it can be concluded that:

a. $q_o$ between columns (3.96) is higher than $q_t$ (2.92), so the difference between columns is significant. It can be concluded that teaching vocabulary using Mnemonic to the second grade students at SDIT Salsabilla Baiturrahman Prambanan is significantly different from the one using Direct Instruction. The mean score of students taught using Mnemonic (72.6667) is higher than the one of those taught using Direct Instruction (68.17). It means that teaching vocabulary using Mnemonic to the second grade students at SDIT Salsabilla Baiturrahman Prambanan is more effective than the one using Direct Instruction.

b. $q_o$ between rows (18.26) is higher than $q_t$ (2.92), so the difference between rows is significant. It can be concluded that the students who have high creativity are significantly different in vocabulary mastery from the students who have low creativity. The mean score of students having high creativity...
(85) is higher than the one of those who having low creativity (55.83), so the students who have high creativity have a better vocabulary mastery than the students who have low creativity.

c. $q_o$ between columns for students with high creativity (3.52) is higher than $q_t$ (3.08), so the difference between columns for students with high creativity is significant. It can be concluded that teaching vocabulary using Mnemonic to the second grade students having high creativity is significantly different from the one using Direct Instruction. The mean score of students having high creativity taught using Mnemonic (87) is higher than the one of those taught using Direct Instruction (83). It means that teaching vocabulary using Mnemonic to the second grade students having high creativity is more effective than the one using Direct Instruction.

d. Because $q_o$ between column by cell ($A_2B_2$- $A_1B_2$) (2.17) is lower than $q_t$ at the level of significance $\alpha= 0.05$ (3.08), the difference between columns for students having low creativity is not significant. It can be concluded that teaching vocabulary using mnemonic to the second grade students having low creativity is not significantly different from the one using direct instruction. It means that students with low creativity will almost have the same result when they are taught using both techniques, Mnemonic and Direct Instruction.

E. **Discussion of the Result of the Study**

This research is one of the efforts to generate some improvement in teaching vocabulary to the second grade students of elementary school students. It has been
discussed in the previous chapter that Mnemonic is one of the alternatives to obtain the intention. The following is the elaboration discussions of the research findings.

1. Mnemonic is more effective than Direct Instruction

Mnemonic is an effectiveness way of enhancing vocabulary learning and recall. It also helps learners elaborate the words. Moreover, by using mnemonic, the students do not feel hard to spell the word, acquire the word, understand the meaning, and use it in a sentence. Mnemonics are used to improve retention of memory. Mnemonic can relate new information to information students already have stored in their long-term memory. Mnemonic provides retrieval clues that make the student recall better the words which have been explained. This condition will always create a positive atmosphere and the students’ mastery of the words covering of four indicators of vocabulary (its meaning, spelling, pronouncing, and using the words).

The activities which are practiced in mnemonic are begun from music (song) mnemonic to pronounce the words then the students to remember the keyword by linking information to familiar material (sounds and meanings are both given consideration), envision the picture and how it relates to the definition, and finally recall the definition. Finally, the learners have to create the first or more than one letter of each word in a list of items to make a name of a person or thing. Thompson (1987) in Amiryousefi & Ketabi (2011: 179) similarly acknowledge the usefulness of mnemonic by stating that they can help learners
learn faster and recall better by integration of new material into existing cognitive units and by providing retrieval cues. Cameron (2001: 87) adds that vocabulary memorizing (mnemonic) activities can make central use of the idea of networks meaning.

Meanwhile, direct instruction is a teacher-centered approach. The direct instruction is highly teacher-directed. Direct instruction is similar to traditional teaching. Generally vocabulary traditional teaching is directed toward teaching academic content. Teachers cannot assess the students’ prior knowledge, so they will be unaware of why particular students cannot learn. Moreover, the students do not have chance to develop their creative thinking in learning because the teacher as a whole decision maker in learning process. Peterson (1999: 231) states that direct instruction is characterized by teacher-centered and teacher-dominated classroom. Skinner (2010: 44) adds that direct teaching involves the direct, well-structured presentation of information, ideas and skills, with strong teacher control of the direction of learning.

Therefore, it can be concluded that Mnemonic is more effective than Direct Instruction to teach vocabulary.

2. The Students Having High Creativity have Better Vocabulary Mastery than those Having Low Creativity

It is very crucial of students to have high creativity in learning. They will be able to think creatively. The students who have high level of creativity will have high ability in mastering vocabulary. They will memorize vocabulary better
Students came up with high creative ideas and personalizing the mnemonic seems to have eliminated any problems in learning vocabulary. They will apply Mnemonic that their teacher has explained to produce the newly learned words. Moreover, students having high level of creativity will be faster and easier to express their good ideas in learning process.

In contrast, the students having low creativity tend to be passive in the class. They are lazy, spiritless, and shy to do something because there is no purpose in joining the class. The students having low creativity look silent without doing anything during the vocabulary class. Consequently, the teacher should treat and control them intensively to enhance their creativity in learning vocabulary. OSHO (2012: 3) states that uncreative refers to an unable person to produce new ideas, new action, while innovation is the process of both generating and applying such creative ideas in some specific context. The students who have low creativity will have difficulty in understanding what their teacher has explained. They do not have big willingness to create and produce the newly learned word, even try to find new innovation in learning vocabulary.

In line with the explanations about, the students having high creativity have better vocabulary mastery than those having low creativity.

3. There is an Interaction between Learning technique and Students’ Creativity.

In reaching the students’ vocabulary mastery as good as possible, the teachers have to select the suitable technique that is supposed to maintain and
motivate the students in joining the classroom learning. In Mnemonic technique, the teacher tries to create new way of learning that the teacher never applies before in teaching vocabulary. Thornbury (2002: 25) states that Mnemonic helps retrieve items or rules that are stored in memory. Mnemonics organize information that teachers can relate new information to information. Using mnemonics will help students encode information in a more meaningful form and to provide them with a retrieval route at the time of recall.

In applying Mnemonic, the students should have high creativity because they have to explore their thinking to produce the new words. Having high creativity is needed when the learners create the key words for recalling the meaning of words individually or in group. In remembering the keyword, the students link information to familiar material, including sounds and meanings. Having high creativity students are able to envisage the picture and relate it to the definition, so it will help the students recall the new word. Gardner (2001: 46) states that high creativity students have certain characteristics such as innovation/novelty, excellence, recognition by the field within which it takes place and a break with past understandings or perspectives. Thus, Mnemonic is more effective than Direct Instruction to teach vocabulary for the students who have high creativity.

Based on the result of this research, the effectiveness of both mnemonic and Direct Instruction are similar for teaching vocabulary for students having low creativity. It means that neither of the learning technique is more effective than the other or Mnemonic is as effective as Direct Instruction to teach vocabulary for
students having low creativity. The effectiveness of both Mnemonic and Direct Instruction are similar for teaching vocabulary for students having low creativity because whatever learning techniques are used, they do not give any effect to the students having low creativity. Students having low creativity tend to be passive in doing the task. They do not have any willingness to do something. According to Fasko (2001: 3) a learning technique is not successfully applied when it is taught to the low creativity student. It can be concluded that students having low creativity have almost similar score of vocabulary mastery whether they are taught using Mnemonic or Direct Instruction.
CHAPTER V

CONCLUSION, IMPLICATION AND SUGGESTION

The discussion of the findings has been presented in the previous chapter. This chapter presents the conclusion, implication of the research, and suggestion for teachers, students, and other researchers based on the finding of the research discussed on the previous chapter.

A. Conclusion

It has been clearly described on the previous chapter that the research findings are as follows:

1. Mnemonic is more effective than Direct Instruction to teach vocabulary for the second grade students of SDIT Salsabilla Baiturrahman Prambanan in academic year of 2012/2013.

2. The vocabulary mastery of the second grade students of SDIT Salsabilla Baiturrahman Prambanan in academic year of 2012/2013 having high creativity is better than those having low creativity.

3. There is an interaction between teaching techniques and students’ creativity in teaching vocabulary for the second grade students of SDIT Salsabilla Baiturrahman Prambanan in academic year of 2012/2013.

Based on the research findings, the conclusion is that the Mnemonic is an effective teaching technique for teaching vocabulary to the second grade students of SDIT Salsabilla Baiturrahman Prambanan.
B. Implication

The result of this study shows that mnemonic is better than direct instruction in teaching vocabulary mastery. It implies that the mnemonic is appropriately applied in teaching vocabulary, particularly to the second grade students of Elementary school. Mnemonic helps the students learn faster and recall words better by providing retrieval cues and relating the words to some previously learnt information. Mnemonic enhances meaningfulness of information and it is helpful for students to practice using word orally or in written text. On the other hand, mnemonic connects words, which is used as a spelling aid. This technique is helpful because words are more easily memorized when alliteration and rhyme reinforce them. Teacher guides the students so that they can improve their thinking skill. Teacher also facilitates repetitions and rehearsal of the key words until mastery is attained.

The activities which are applied in mnemonic are as follows (1) The teachers inform students about the purpose of the instruction and the rationale using mnemonic; (2) The teacher sings a song that is suitable with the material given, then the students follow the teacher’s song; (3) The teacher asks the students to create and remember the keyword by linking information to familiar material, envision the picture and how it relates to the definition, and finally recall the definition. When asked to recall the definition of words, students engage in a four-step process: think back to the keyword, think of the picture, remember what else was happening in the picture; and produce the definition; (4) Create the first or more than one letter of each word in a list of
items to make a name of a person or thing; and (5) Arrange guided practiced, provide corrective feedback, and allow opportunities for students to share their thinking with one another about how they develop their technique. In this activity, the students do not only practice the words which have been learned but they practice in real context orally or in written form using the simple sentence.

C. Suggestion

Based on the conclusions and implications written earlier, there are some suggestions proposed.

1. For the Teacher

The appropriate choice of selecting teaching technique can make the teaching and learning process not only run well but also interesting and enjoyable. Enjoyable teaching and learning activities will help students receive the material more effectively and efficiently; it will also makes the teacher more focus on the necessary things needed for the class. Mnemonic is a technique which will lead students to be more active and independent; thus it is good to be applied in small classes as well as the big ones. It is simple, fun and arousing creativity. That’s why, it is recommended for teacher to apply it in their class. The teacher is suggested to implement Mnemonic Technique to teach vocabulary, it will raise students’ curiosity up and will burn their spirit to learn vocabulary actively and creatively. The teacher is able to reduce the students’
suspense in the teaching learning process when they are able to apply Mnemonic technique in vocabulary mastery.

2. For the Students

The students are suggested to apply mnemonic in learning vocabulary as much as possible because by fully joining in the class the students are able to develop all potentials and their creativity since Mnemonic technique offers them fun activities to be involved in. The student will learn faster and recall words better because Mnemonic technique provides device that help them practice using the words in written and orally, even the students can easily produce the words and memorize longer in their mind. The students who still have low skill in vocabulary are able to be active as well as the high ones and they are able to learn together with the students obtaining higher score of vocabulary mastery. Besides, there are some students who are spiritless to learn the words because allmost all of students active in learning process, there is no obstacles for them to follow and join in teaching learning activities running in the class. In this case, what the students have do to is just focusing on how the teacher organizes and manages the class better.

3. For other researchers

The other researchers who are willing to conduct the same technique as their research are able to use the result of this research as a supporting data or material to conduct their research in more detail or they are able to make use of the result of this thesis research as comparative study to
develop their research to share a different finding to other readers. The other researchers are also able to outfit the limitations of the result of this research to be more complete so that the result of their research is able to offer something different and new to other readers. They are also able to conduct a research by using this method with different settings and different students’ psychological aspects whether or not this method is still effective to teach any dependent variable because different social and cultural background of people living in certain places demand different methods, techniques, strategies, media, etc., which are suitable and appropriate for them. The result of their research will have been being waited for.