



# IE EFFECT OF USING TEAMS GAMES TOURNAMENTS METHOD STUDENTS'VOCABULARY MASTERY AT THE SEVENTH GRADE STUDENTS OF SMP N 5 PADANGSIDIMPUAN THESIS 

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Assalamu'alaikumWr. Wb.
After reading, studying, and giving advice for necessary revise on the thesis belongs to ANNISA HULHUSNA SIREGAR, entitled "The Effect of using Teams Games Tournaments Method on Students'Vocabulary Mastery at the seventh grade students of SMP N 5 Paadangsidimpuan " We assumed that the thesis has been acceptable to complete the assignments and fulfill the requirements for graduate degree of Education (S.Pd) in English Education Department, Tarbiyah and Teacher Training Faculty in IAIN Padangsidimpuan.

Therefore, we hope that the thesis will soon be examined by the Thesis examiner team of English Education Department of Tarbiyah and Teacher Training Faculty IAIN Padangsidimpuan. Thank you.
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The Thesis had been accepted as a partial fulfillment of the requirement for the Graduate Degree of Education (S.Pd) in English Program.

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The writer realizes that this thesis cannot be considered perfectly without critiques and suggestions from the readers. Therefore, it is such a pleasure for her to get critiques and suggestions from the readers to make this thesis better.

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\begin{abstract}
This research focused on the effect of Teams Games Tournament (TGT) method on students vocabulary mastery at the seventh grade of SMP N 5 Padangsidimpuan.. The students' problems in vocabulary were: 1) students were bad in pronouncing words, 2) students were difficult to understand new words, 3) students did not know many words. Finally, the students were difficult in every fields of their learning process such as listening, speaking, reading and writing. The purpose of this research was to know whether there is the significant effect Teams Games Tournament (TGT) method on students vocabulary mastery or not at the seventh grade students of SMP N 5 Padangsidimpuan.

The method used in this research was experimental research. Two classes were chosen randomly as the sample. They were VII-8 as experimental class that consisted of 22 students and VII-10 as control class that consisted of 22 students. It was taken after conducting normality and homogeneity test. The data was derived from pre-test and post-test. To analyze the data, the researcher used \(t\)-test formula.

After analyzing the data, the researcher found that mean score of experimental class after using Teams Games Tournament (TGT) method was higher than control class. Mean score of experimental class before using Teams Games Tournamets was 58.62 and mean score after using Teams Games Tournamets was 84.59. Meanwhile, the mean score of control class in post test was 73.74. Besides it, the score of \(\mathrm{t}_{\text {count }}\) was bigger than \(\mathrm{t}_{\text {table }}\) (4.549>2.021). It's mean that the hypothesis alternative \(\left(\mathrm{H}_{\mathrm{a}}\right)\) was accepted. It was concluded that there was a significant effect Teams Games Tournament (TGT) method on students vocabulary mastery at the seventh grade of SMP N 5 Padangsidimpuan.
\end{abstract}

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\section*{CHAPTER I}

\section*{INTRODUCTION}

\section*{A. Background of the problem}

Generally, vocabulary is all the words in a language. Vocabulary has role as the foundation of language competence, because if there is no vocabulary, there is no language. Learning a new language is basically a matter of learning the vocabulary of that language. Moreover, the first lesson of human language is words. It can be proved from the children in their first language acquisition. When a children speaks firstly, the first thing that she/he says is word and then develop with a sentences as the end of this process. It also occurs to the foreign language acquisition such as English. The first step to master English is by learning and memorizing vocabulary as much as possible. So, without vocabulary, to master English of students will not be good.

The position of vocabulary is an essential element of language in teaching English. So,vocabulary is an important element for everyone to master the four skills of English; listening, speaking, reading, and writing. Here are some utilities of vocabulary mastery; the first, the students easy to know what other people say through vocabulary mastery. As the researcher known a lot of information presented in listening such as radio, native speaker and television. Without a propotional amount of vocabulary, anyone will get difficulties to understand what people say.

Second, vocabulary mastery will prove the students' speaking ability. Students will own ability to speak to every one if they have many vocabularies mastery. Then, when the students speak to the native speaker they will be easy to understand what they said. Without it, it is imposible to own speaking competence. Third, vocabulary mastery will help students to understand a text when they are reading. The students will be easy to get main idea from text. Fourth, vocabulary mastery will help students in writing skill. Written texts are representation of the author's thouhgt, so vocabulary mastery is the way to understand the thought. Based on the illustration above, it is undeniably that vocabulary mastery is necessary to everybody in variety of porpuse because mastering vocabulary students can learn language easly.

Many efforts have been done by goverment and teacher to increase students' vocabulary mastery. Begun from the goverment, such as the goverment upgrades quality of teacher, makes a new curricullum better than before, applies schoolarship for smart students and prepares good facilities and tool for studying especially in studying English subject. Then, from the teacher; teachers play a criticl role in supporting English subject. Teacher needed to understand how to design the classroom language environment so as to optimize language such as uses various method in teaching English in English class. Teacher makes a lesson plan and creativity such as given task about new words that they have not
learned yet and students got the answer would got the present, things would be made them interest and curious. Based on the efforts that have been done would be increase the quality of education in school.

Unfortunatelly, not all students were successfull in English, especially to mastering vocabulary. Based on the interviewed done by researcher with Mss. Ros Mawar as an English teacher in SMP N 5 Padangsidimpuan mentioned that most of students in the school still achieve substandard goal, that is \(60-70\) score. The score can not fulfill criteria of minimum learning mastery (KKM) is 75 score. It means that students in this school are still poor in mastering vocabulary of English subject. \({ }^{1}\) It was made them bad in understanding or comprehending English spoken and difficult to spoke in good English. They were also bad in understanding English passage and difficult to wrote their thought in written form. The students have some problems in vocabulary mastery, such as bad pronunciation, difficult to understand new words, and the worst problem was that students did not known many words. The problems were caused by several reasons such as students' educational background, their less practicing, interesting and motivation, their bad mindset about English, their less strategy to learned vocabulary and the

\footnotetext{
\({ }^{1}\) Private Interview, Miss Ros Mawar. Teacher of SMP N 5 Padangsidimpuan, (Padang Matinggi, September \(23^{\text {th }}\) 2016, at: 11.00 a.m).
}
teacher's less strategies in teaching. The researcher thouhgt that it was a big problem.

There are some factors in students' vocabulary mastery, such as method, media, and strategy. One of the factors that has big effect to the students' vocabulary mastery is method. Method is a particular form of procedure for accomplishing or approaching something, especially a systematic or established one. So, there many method in cooperative learning. The method that gives a students chances to increased their vocabulary mastery in English subject. Through this method the students, actived in learning process, working in a group and sharing knowledge. Besides, it was also helped the students to increase their vocabulary mastery in English.

Cooperative learning is one of the best in classroom for teaching to create fun in the class. There are some kinds of cooperative learning method, they are : Student Teams Achievement Division (STAD), Jigsaw, Teams Assisted Individualization, Cooperative Integrated Reading and Composition, and Teams Games Tournaments (TGT). The method of cooperative learning, having been used in subjects from math to language arts to socials studies to science. \({ }^{2}\)

\footnotetext{
\({ }^{2}\) Robert E.Slavin, Cooperative Leraning Theory, Research, and Practice, (USA: Singapura 1990) p. 71
}

One of the method to teach vocabulary is Teams Game Tournament (TGT). This vocabulary teaching method used some procedures and divided into four steps. Teaching the Topic, Study Team, Games and Award the group. So, Teams Game Tournament (TGT) used to teach the material to students or presenting the material.

Teams Game Tournament is one of the method in cooperative learning method. The method that made students to create a group worked in classroom. It was also a way for the students performance in different teams. It was also made students enjoyed in learning process.

The role of Teams Game Tournament (TGT) in teaching vocabulary was increased their knowledge of students not only from the teacher, but also by the students themselves and students have positive attitudes such as cooperation, tolerance and learnd the opinion from other people. So, by using Teams Game Tournament (TGT), the teacher probably could motivated the students to found the meaning of the word and understand the meaning of the word. Because by using Teams Game Tournament (TGT), the students could worked together with their friends and they have variation in their learning process in the classroom. So, the teacher hopes that students would bee enjoyed on their learning activities.

Based on explanation above, the researcher conducted the title of the research "The Effect of Using Teams Game Tournament (TGT)

Method on Students' Vocabulary Mastery at The Seventh Grade Students of SMPN 5 Padangsidimpuan".

\section*{B. Identification of the Problem}

Based on the background of the problem above, Vocabulary mastery is the important element for everyone to master the four skills of English; listening, speaking, reading, and writing. Key of students to understood what they heard, communicate successfully with other people, got the main idea in reading text and able to wrote in written form.

There are some factors in students' vocabulary mastery, such as media, strategy, and method. One of the factors that has big effect to students' vocabulary mastery is method. Method is a particular form of procedure for accomplishing or approaching something, especially \(a\) systematic or established one. So, there many method in cooperative learning. The method that gave a students chances to increased their vocabulary mastery in English subject.

\section*{C. Limitation of the Problem}

As mentioned above, There are some kinds of cooperative learning method, they are : Student Teams Achievement Division (STAD), Jigsaw, Teams Assisted Individualization, Cooperative Integrated Reading and Composition, and Teams Games Tournament (TGT).

In this research the researcher wanted to made a study about how to teachs vocabulary for students in secondary school with the method.

There are many method that can be used in teaching vocabulary as mention above, but the researcher is not discussed all of the method. Researcher discuss only one method to focus this research. They are Teams Game Tournament (TGT). Teams Game Tournament (TGT) is one of the method in cooperative learning method. The method that made students to created a group working in classroom. It was also a way the students performance in different teams. It was also made students enjoyed in learning process.

This is the reasons why the researcher choosed Teams Game Tournament (TGT) is the role of Teams Game Tournament (TGT) in teaching vocabulary is to increased their knowledge of students not only from the teacher, but also by the students themselves and students have positive attitudes such as cooperation, tolerance and learned to accept opinion from other people. So, by using Teams Game Tournament (TGT), the teacher probably can motivated the students to found the meaning of the word and understand the meaning of the word. Because by using Teams Game Tournament (TGT) the students could work together with their friends and they have variation in their learning process in the classroom. So, the teacher hopes that students would bee enjoyed their learning activities.

\section*{D. Formulation of the Problem}

Based on limitation of the problem mentioned above, the problem of the research can be formulated as follows;
1. How far is the vocabulary mastery at the seventh grade students of SMP N 5 Padangsidimpuan before using Teams Game Tournament (TGT) method?
2. How far is the vocabulary mastery at the seventh grade students of SMP N 5 Padangsidimpuan after using Teams Game Tournament (TGT) method ?
3. Is there any significant effect of using Teams Game Tournament (TGT) on student vocabulary mastery at at the seventh grade students SMP N 5 Padangsidimpuan?

\section*{E. The Purposes of the Research}

The purposes of the research are as follows:
1. To examine vocabulary mastery before using Teams Game Tournament (TGT) on vocabulary mastery at the seventh grade students of SMP N 5 Padangsidimpuan.
2. To examine vocabulary mastery after using Teams Game Tournament (TGT) on vocabulary mastery at the seventh grade students of SMP N 5 Padangsidimpuan.
3. To examine wether there is or there is not any significances effect of using Teams Game Tournament (TGT) on vocabulary mastery at the seventh grade students of SMP N 5 Padangsidimpuan

\section*{F. Significances of the Research}

The result of the research expected to be useful for:
1. For headmaster and English teachers as a method compare and to improve the science especially about vocabulary mastery by using Teams Games Tournaments method at the seventh grade students of SMP N 5 Padangsidimpuan.
2. For English teachers as information to improve the quality of teaching vocabulary by Teams Games Tournaments method at the seventh grade students of SMP N 5 Padangsidimpuan.
3. For readers and the others researcher in conducting further research in the same topic.

\section*{G. Outline of the Thesis}

The researcher is going to organize this research paper in order to make the reader easier to understand:

In chapter I, it consist of the background of the problem, identification of problem, limitation of problem, formulation of the problem, purposes of the research, significances of research and outline of thesis.

In chapter II, it consist of the theoretical descriptions, which the sub chapters consists of the theoretical description of teams games tournament and explain about vocabulary mastery. Then review of related findings, and conceptual of framework and hypothesis.

In chapter III, it consist of the research methodology described about schedule and place of research where and when the research was done, method of research that discussed about kinds of research, population and sample discussed about amount students as population and how to take the sample, procedures of research discussed about planning before and after research were done., instrument of data collection and data analysis used to test the hypothesis.

In chapter IV, it consist of the description of the data and discussion which researcher presents about the result of the research. Second, discussion about theory and result of the hypothesis what the researcher found in the research.

In chapter V , it consist of the conclusion which researcher answers formulation of the problem and hypothesis. Second, suggestion discussed about problem solving which researcher found in this research.

\section*{CHAPTER II}

\section*{LITERATURE REVIEW}

\section*{A. Theoretical Description}

\section*{1. Vocabulary Mastery}
a. Definition of Vocabulary

Vocabulary is an essential element of language in teaching English. So, vocabulary is an important element for everyone to master the four skills of English; listening, speaking, reading, and writing.

According to Hornby, defines vocabulary as : (1) all the words that a person knows or uses; (2) all the words in particular language; (3) the words that people use when they are talking aboute particular subject; (4) a list of words with their meaning. It means that a language that people used to talk a certain topic consist of a number of words. \({ }^{1}\)

According to Elfrieda H. Hiebert and Michael L. Kamil, "Vocabulary is the knowledge of meaning of words". \({ }^{2}\) The same thing is also delivered by Caroline T. Linse that Vocabulary is the individual's knowledge about the collection of words. \({ }^{3}\) It means that vocabulary is someone's knowledge about words.

\footnotetext{
\({ }^{1}\) Retraningtyas Wulandari Wisnu Putri, Improving Vocabulary Mastery through Games, retrieved from : PDF eprints.uny.ac.id on 1st February 2018, 15:07 am.
\({ }^{2}\) Hiebert, Elfrieda H. and Michael L. Kamil, Teaching and Learning Vocabulary: Bringing Research to Practice, (Jew Jersie: Lawrence Erlbaum Associates, 2005), p. 3.
\({ }^{3}\) Caroline T. Linse, Practical English Language Teaching: Young Learners, (New York: McGraw-Hill, 2005), p. 121.
}

According to Jack C. Richard and Willy A Renandya, "Vocabulary is a core component of language proficiency and provides much of the basis for how well learners listen, speak, read and write". \({ }^{4}\)

Based on some definitions above, it can be concluded that vocabulary is knowledge about the collection of words with the meaning. That is used to master the skill in language such as listening, speaking, reading and writing.
b. Purpose of Vocabulary

Vocabulary is important to students. In the Teaching Practice Handbook, there are several purposes of vocabulary :
1) to express their opinion thinking
2) to express idea in their society
3) particulary in early stages when students are motivated
4) to5 learn the basic words they need to get by in language.
5) to understand nuances of meaning
6) to become more proficient in their own choice of words and expressions. \({ }^{5}\)

According to Michael J. Wallace, the purpose of mastering vocabulary is divided into three purposes of vocabulary, they are :
1) Quantity means number of words to counting a lesson. In the minimal number of words for junior high school is around 1500 words, while senior high school is about 4000 words.
2) Need to determine the students' vocabulary for bussiness.
3) Presentation to specific understanding in the meaning of the words being learn since meaning involves many things, this requires the teaching in which the words are presented. \({ }^{6}\)

\footnotetext{
\({ }^{4}\) Jack C. Richard and Williy A. Renandya, Methodology in Language Teaching and Anthology of Current Practice, (USA: Cambridge University Press, 2000), p. 255.
\({ }_{5}^{5}\) Roger Gower, et al. Teaching Practice Handbook, (Thailand: Macmillan, 1995), p. 124
}

Based on the explanation above, there are some purposes of vocabulary. They are : to express their opinion thinking, to express idea in their society, particularly in early stages when students are motivated, to learn the basic words they need to get by in language, to understand nuances of meaning, to become more proficient in their own choice of words and expressions, counting the lesson, need for business, and presentation.

On this discussion above we limit the purposes of vocabulary into five points. The first, to express their opinion thinking, it means that students can express their idea by words. Second, to learn the basic words they need to get by in language, by learn the basic words students can start to communicate with another people. Third, to understand nuances of meaning, it means students get many meaning to express the opinion. Fourth, to become more proficient in their own choice of words and expressions. Fifth, for counting the lesson, it means the minimal number of words for junior high school is around 1500 words, while senior high school is about 4000 words.
c. Kinds of Vocabulary

There are two kinds of vocabulary :
1) Active Vocabulary - Working Vocabulary or Functional Vocabulary

\footnotetext{
\({ }^{6}\) Michael J. Wallace, Teaching Vocabulary (ELBS, 1989), p. 235.
}

It consist of words a person uses for a speech or writing as he fully understand the meanings of the words.
2) Passive Vocabulary - Recognition Vocabulary

It consist of words a person encounters in a newspaper and editorilas or in others speech. These are unfamiliar words where it can be judged based on its ccontext of use. \({ }^{7}\)

So, An active piece of vocabulary is a word a person uses and passive vocabulary is one that person understand, but does not use.

\section*{d. Types of Vocabulary}

A vocabulary means both a list of words and the range of words known by any one person. There are four main types of vocabulary.
1) Listening Vocabulary - a person's listening vocabulary is all the words he or she can recognize when listening to speech or communication.
2) Speaking Vocabulary - a person's speaking vocabulary is all the words he or she uses in communication.
3) Reading Vocabulary - a learned person's reading vocabulary is all the words he or she can identify when reading.
4) Writing Vocabulary - words are used in various forms of writing from essays to Twitter feeds. A writer will have his own preference as to which synonims to use the entire word list. \({ }^{8}\)

So, there four types of vocabulary. they are person's listening vocabulary, person's speaking vocabulary, person's reading vocabulary, and the last is person's writing vocabulary.

\footnotetext{
\({ }^{7}\) Kinds of Vocabulary, Retrieved from English TutorVista.Com, on 1st February 2018, 15:23
\({ }^{8}\) Types of Vocabulary, Retrieved from English TutorVista.Com, on 1st February 2018, 15:35 am
}
e. Roles of Vocabulary

Vocabulary has an important role in the language learning. As a linguist David Wilkins in Thornbury stated that "Without grammar very little can be conveyed, without vocabulary nothing can be conveyed". \({ }^{9}\)

John and Shane state, "The importance of vocabulary knowledge has long been recognized in the development of reading skills". \({ }^{10}\)

Bromley states that vocabulary holds some important roles in teaching-learning process. They are :
1) Promoting fluency
2) Boosting comprehension
3) Improving achievement
4) Enhancing thinking and communication. \({ }^{11}\)

Based on explanations above we concludes; first, the role of vocabulary is very important to be able to use the language productively. Second, role of vocabulary is not only for communicating orally, but also in written form and to master the language skills someone needs to master the vocabulary first. Third,

\footnotetext{
\({ }^{9}\) Thornbury, How to Teach Vocabulary, (London: Longman, 2004) p. 73
\({ }^{10}\) Shane, Teaching Effective Vocabulary, ( Departement for Children: University Press, 2009)
\({ }^{11}\) Broemly, The Language and Literacy Spectrum, ( New York: The New York State, 2004) p. 65
}
role of vocabulary is students will be able to improve achievement and enhance communication if students can master vocabulary well.
f. Materials of Vocabulary

In syllabus of seventh grade of junior high school in curriculum KTSP, there are some materials of vocabulary can be devided into Basic vocabulary such as:
1) Colours
2) Names of Days and Months
3) Members of Family
4) Name of things
5) Part of body
6) Vegetabels
7) Profession
8) Fruits
9) Animal
10) Connotation
11) Denotation \({ }^{12}\)

In the research, to know the students' vocabulary mastery, researcher limit the materials of vocabulary into basic vocabulary includes Vegetables and Members of Family by using Teams Games Tournaments method.

\section*{2. Teams Games Tournament (TGT)}

\section*{a. Definition of Teams Games Tournament (TGT)}

Teams games tournaments is one method of cooperative learning method. The method that make students to create a group working in classroom. It is also a way for making the students

\footnotetext{
12 Syllabus of seventh grade of junior high school in curriculum KTSP
}
performance in different teams. It is also make students enjoy inlearning process.

According to Isjoni TGT is one type of cooperative learning that places the students ingroups 5-6 membered learning students who students work with their respective groups. TGT can be determined by looking at the value they gained during the per-test the ability, gender and race syllabe or a different teacher present the material. \({ }^{13}\)

According to Slavin Teams Games Tournaments (TGT) is originally developed by david devries and keith edwards, is the first of jhon hopkins cooperattive learning method, it use the same teacher presentations and team work as in stad, which students play academic games with members of other teams to contribute poins to their team scores. \({ }^{14}\)

The main idea behind Teams Games Tounaments is to motivate students to encourage and help each other master skills presented by teacher. This method was choosen beacuse it is pledge to provide the opportunities for the students to be involved actively in teaching learning process. They had chances to discuss the difficulties of the lesson that they had faced with their group members which make the learning process successfull.

\footnotetext{
\({ }^{13}\) Isjoni, Pembelajaran Kooperative Meningkatkan Kecerdasan Komunikasi Peserta (Jl.Celeban Timur) Jakarta. 2009. P. 84.
\({ }^{14}\) Robert E. Slavin, Cooperative Learning Theory. Research and Parctice.(USA: Singapura, 1990), P. 6.
}

So, the Teams Games Tornament is one of method in cooperative learning thats make students working in group, study enjoyable, and make the students fun in learning process.

\section*{b. Steps in Teams Games Tournament (TGT)}

Teams Games Tournament have the steps for doing the method, in the implementation of cooperative learning. There are schedule of Activities, namely :
1. Teach

Present the lesson.
2. Team study

Students work on worksheet in their teams to master the material.
3. Tournaments

Students play academic games in abilityhomogenenous, three-member tournament tables.
4. Team recognition

Teams scores are computed based on team members' tournament scores, and team are recognized of they exceed pre-set criteria \({ }^{15}\).

Based what do be revealed by slavin, Hamdani explain the component above as below :
1) Presentation class.

In the fist lesson, teacher present the material in presentation class. Actually, do instruction directly or talk and discussion guide by teacher.in the presentation clas, students must be anttention and understand the material that teacher present because it's will help students to work more than better on discussion group and when play game academic because game score determine group score.

\footnotetext{
\({ }^{15}\) Robert E. Slavin, ibid, p. 87
}
2) Team

Team consisting of four, five students or more that represent all part of class in academic performance, gender, race and ethnicty. Main function of this team is ensure that all team member quite a studying and more in particular again, are subject to be get things square its member for can work quiz with every consideration.
3) Game

Game consist of questions that plan for examine knowledge that students get from presebtation class and goup work. Mostly game just as number of question those are written on same sheet. A students one card get number and have to answer numbers appropriate question which on that card.siswa who answer with right answer will get the score. The score collected by students in the end of study.
4) Tournament

Tournamen happens at the early week or unit end, after learns to give presentation at brazes and team have performed working group to activity sheet. On tournament first learns to point student forlies on tournament table, student gets previous tall achievement on table one, three next on table two and so on.
5) Team recognize

Then, teacher publish the best group, and each of group will get sertificate or reward when score exceed pre- set criteria. \({ }^{16}\)

Based on the two statement above about the step of teams games tournaments method, the researcher use the step of method from slavin. That is teach, team study, tournament and the last team-recognition.

\footnotetext{
\({ }^{16}\) Hamdani, M.A., Strategi Belajar Mengajar, (Bandung : CV Pustaka Setia, 2011), p. 93
}

\section*{c. Advantages and Disadvantages of Teams Games Tournament} (TGT)

According to Killen, " there is the result of research about effect of cooperative learning to achievement the lesson of students implisitly use advantages and disadvantages of Teams Games Tournament (TGT), they are :

Advantages of Teams Games Tournament (TGT) :
1. Students can interact in the small group.
2. Giving the opportunities for the students to solve the problems together.
3. Students will have good attitudes because beside they are responsible of their own selves, they are also resposible of the team.
4. Increase the students' desire in learning.
5. Motivating the students to compote.
6. Provides the teachers to use new variation in teaching.
7. Provides the teachersto make good assesment.
8. Provides the good atmosphere in the class. \({ }^{17}\)

Besides, advantages of Teams Games Tournaments (TGT)above , it also has disadvantages, that is ;
1. Wasting the time, the tournament will take a long time.
2. The absences of the students during tournment period will disturb the successful of the tournament. \({ }^{18}\)

Based on the explanation above about the advantages of teams games tournaments is eight points meanwhile,

\footnotetext{
\({ }^{17}\) Roy Killen, Effective Teaching Strategies 4th Edition,( South Melbourne: Cengage Learning,2007),p. 197
\({ }^{18}\) Ibid,
}
disadvantages of teams games tournamets method is two points. So, this method has many advantages from disadvantages.

\section*{3. Conventioanl Method}

\section*{a. Definition of Conventional Method}

Conventional method is a traditional way that is used by a teacher in teaching and learning process.

Conventional method is the teaching or the way that usually used by the teachers to teach the text to students. \({ }^{19}\)

According to Hudson that conventional method is the method used by the teachers based on mutual agreement in a school. \({ }^{20}\)

So, the it can be concludes that conventional method is the way or method that used by the teacher in teaching a material based on the agreement of the teacher at school.

\section*{b. The Purpose of Conventional Method}

19 Jhon Deriden. Conventional Strategy, retrieved from: \{HYPERLINK "http://www.britania"\} .com/ EBchecked/ topic/421797/nnuclear-method/52993/conventionalmethod on february \(1^{\text {st }} 2018\) at 16:02 p.m.

20 Hudson, The Meaning of Conventional method, retrieved from:

\section*{HYPERLINK}
"http://www.conventional-method/topic/54372-strategy" \({ }_{2 \text { on febmary } 1 \text { ri } 2018 \text { at }}\) 16.05 p.m.

Conventional method is the method or the way usually used by the teachers to teach the material to students. It means that the teacher usually gives all of the explanation of the materials or it is a teacher centered in classroom. In other word, teacher as controller, director, manager, facilitator, and recource for students in teaching learning process.

There are two purpose of conventional (lecture) method, they are:
1. To convey a subject matter is logically arranged, and irrelevant material or subject matter is avoided.
2. As the curriculum is design by the teacher, it become easy to achieve the desired goals by teacher. \({ }^{21}\)

The two purpose is the first important in lecturer method or teacher-centered, in this method, the teacher is centeredin learning process. This method students to find a subject matter a material through a teacher.

In addition, Gattegno says that there are three purposes of Conventional (lecture) method, they are:
1. To convey the information or material in teaching learning process.
2. To increase the students' knowledge and language from teaching learning process in classroom.
3. To explain the subject matter or material based on design by teacher in clearly. \({ }^{22}\)

\footnotetext{
21 Hudson, The Meaning of Conventional Teaching (Online), (\{HYPERLINK "http://www.conventional-method/topic/54372-method"\}), Accessed on February, 1st, 2018 at 16.08 am
\({ }^{22}\) Caleb Gattegno. Teaching Foreign Language in Schools, (New York: Educational Solution,1972),p.136.
}

Based on the quotations above, it can concluded that the conventional or lecture teaching method is oldest (traditional) teaching strategy applied in educational institution. This teaching method is one way to communicate the information or subject matter by teacher with lecturing in teaching learning process.

\section*{c. Step of Conventional Method}

There are some procedure of conventional method. there are some steps needed to attention before teaching in the classroom, those are:
1. Preparation
a. To formulate the objectives to be achived.
b. Determine the main points of the material will be explain.
c. Preparing tools.
2. Implementation Phase
a. Steps Opening
i) Make sure that studends understand the objectives to be achieved.
ii) Do apersepsi step, that is step lingking the subject metter and the subject matter that will be delivered.
b. Steps Presentation
i) Maintain continuous eye contact with students.
ii) The use of communicative language and easily digestible students.
iii) Present learning materials in systematic, no bounding to be estily captured by the students.
iv) Respond to immediate students responses.
v) Keep the class conducive and exciting to learn.
3. Steps Ending or Closing
a. Guide students to draw conclusion or summarize the subject metter.
b. Stimulate students to be able to respond or provide some sort of review of the learning materials that have been submitted.
c. Conduct an evaluation to determine the students ability to master the learning material that had just delivered \({ }^{23}\).

According to Kiki, the procedure of conventional method are:
1. Preparation
a. Pormulate goals to be achieved.
b. Determine the main points of the material to be explain.
c. Prepare tools
2. Implementing Phase
a. Step opening

Step opening of the lecture method is a step that determines success or failure in the implementation of a lecture. In practice there are things that must be considered. First, make sure the students to be able to understand what purpose will be achieved. Second, do the apersepsi ie combining the subject matter and the subject matter that will be delivered.
b. Step presentation

This stage is the core of the lecture method. Teachers must deliver learning materials by either using sentences easily understood.
3. Step ending or closing

Lecture method should be closed so that learning materials are already understood and mastered by the student does not fly everywhere \({ }^{24}\).

Based on the explanation above, the procedures of conventional method can divided by two, those are : the first is preparations, in preparations teacher open class with formulate the objectives to be achived, determine the main points of the material will be explain,

\footnotetext{
\({ }^{23}\) Andrean Prime, Steps Implementing Teaching Method,Avaiable at \{ HYPERLINK "http://materiinside/2014/12" L Mangkah- zmelaksanakan -metode-ceramah.html, ( Accessed on

February,1st, 2018 at 16:.09 am)
\({ }^{24}\) Kiki Amelia, Langkah-langkah Menggunakan Metode Ceramah, Avaiable at \{ HYPERLINK \(\ell\),
}
preparing tool. The second procedure is implamantation phase, the teacher gives and explain material, the teacher give the students exercises, the students answer the question, the teacher and the students discuss the answer of the question.

\section*{b. The Advantages and Disadvantages of Conventional Method}

The are some advantages of conventional teaching. According to Dodik the advantages of conventional teaching are:
1. Teacher easily master classes.
2. Easy to organize the seating /class
3. Can be followed by a large number of students.
4. Easy to prepare and implement them.
5. Master's easy to explain the lesson well.
6. More economical in terms of time.
7. Provide opportunities for teachers to use their experience, knowledge and wisdom.
8. Can use comprehensive teaching materials.
9. Helping students to hear accurately.
10. If used correctly it will be able to stimulate and increase student interest in the academic field.
11. Can strengthen students' reading and learning from some other source. \({ }^{25}\)

Then, According to Andrean, the advantages of conventional method are:
1. Conventioanl is a method that is cheap and easy.
2. Conventional can present subject matter is broad.
3. Conventioanl can provide material points which need to be highlighted.
4. Through conventioan teachers can control the state of the class, because class is the responsibility of who teachers explian.

\footnotetext{
\({ }^{25}\) Dodik Heru Setiawan, Defenition, Adventages and Disadventages Lecture Method, Avaiable at \{ HYPERLINK "http://zonainfosemua./2011/01/pengertian-kelebihan-dan-kekurangan.html" \(L\) (Accessed on, february, 1st, 2018 at 16.15 a.m)
}
5. Class organization by using conventional can be set to be more simple. \({ }^{26}\)

Based on the explanation above, the researcher can be concluded the advantages of conventioanl method are eiser for tearcher master the class, the teacher can control the state of the class, the focus of students just for teacher, and helping students to hear accurately.

The disadvantage of conventional method, Andrean says:
1. Material held by students from the explanations will be limited to controlled teachers.
2. Conventional are not accompanied by demonstrations could lead to the occurrence of verbal;
3. Teachers who lack the ability to speak good, conventioanl often regarded as tedious method;
4. Through Conventional, it is very difficult to know whether all the students already understand what is being described or not. \({ }^{27}\)

Then, disadvantage of conventional method, according to Dodik
there are:
1. Easy to be verbal.
2. The visual into a loss, and the auditory (listening) are actually received.
3. When are always used and are used can make bored.
4. The success of this method depends heavily on who is using it.
5. Tend to make students passive. \({ }^{28}\)

Based on the explantaion, the researcher concluded the disadvantages of conventional method are easy for students boring in

\footnotetext{
\({ }^{26}\) Andrean Prime,Defenition, Adventages and Disadventages Lecture Method, avaiable at \(\{\) HYPERLINK "http://materiinside.co.id/2014/12/pengertian-kelebihan-kekurangan-metode-ceramah.html" L (Accessed on february, 1st, 2018 at 16.20 a.m)
\({ }^{27}\) Andrean Prime, Op. Cit, (Accessed on february, 1st, 2018 at 16.20 a.m)
\({ }^{28}\) Dodik Heru Setiawan, Op. Cit, (Accessed on february, 1st, 2018 at 16.25 a.m)
}
class, make students lazy, very difficult to know whether all the students already understand what is being described or not.

Based on the explanation, conventional method is a teaching without media, technique, strategy, approach. The tachers just explain the material with lecture method, then teacher gives material, the teacher give the students exercises, the students answer the question, and the last teacher and the students discuss the answer of the question.

\section*{4. Teaching Vocabulary by Using Teams Games Tournaments (TGT)}

Teaching is not an easy job, but it is necessary to see our students. Progress and know that we have helped to make it happened. Teaching vocabulary seem so difficult and challenging for English teacher. Vocabulary is an essential element of language in teaching English. That's way teacher have big challenge to enable their students to master English well, especially vocabulary in the class. There are some kinds of cooperative learning method, they are : Student Teams Achievement Division (STAD), Jigsaw, Teams Assisted Individualization, Cooperative Integrated Reading and Composition, and Teams Games Tournaments (TGT). One of the method to teach vocabulary is Teams Games Tournaments (TGT). This vocabulary teaching method uses some procedures and divided four step. Teaching the Topic, Study Team, Games and Award the group.. So, Teams Games Tournaments (TGT)
used to teach the material to students or presenting the material.There are 3 steps of procedures; small group discussion in teaching speaking such as: pre-teaching, while-teaching and post-teaching.The more explanation as follows;
a. Pre Teaching

Before starting the lesson about vocabulary, firstly teacher gives greetings for students and prepare the students for studying and follow in teaching learning process. Then, teacher instruct to studentsfor praying before starting the lesson and check the students' attend list.

Next, teacher give the esplanation to students about lesson plan, aboute standard competence that have to master the students, aboute basic competence that have to know the students, the indicators, and also aboute the method that teacher's use when teaches vocabulary.
b. While teaching

When teaching learning process, the teacher gives the treatment to students aboute learning vocabulary by using teams games torunaments method. Where in teams games tournaament have 4 steps. There is teach, team study, tournament and team recognition. The first, teacher present the vocabulary lesson aboute the topic. The second, team study, students work on worksheet in
their teams to master the vocabulary about the topic. The third, tournaments, students play game academic in ability-homogenous, tree-member tournament tables. The last, team recognition, teams scores arecomputed based on team members' tournaments scores, and teama are recognition if they exceed pre-set criteria.
c. Post teaching

After giving the treatment to students, the teacher ask to students how their feeling after teaching vocabularyby using teams games tournaments method. Is there any significanteffect after using teams games tournaments method.

The explanation above will summary in tables below :
\begin{tabular}{|c|c|c|c|}
\hline Procedure & Teacher & Steps & Students \\
\hline \[
\begin{aligned}
& \mathrm{P} \\
& \mathrm{R} \\
& \mathrm{E}
\end{aligned}
\] & - The teacher gives greeting for students & & - Students giving responding of teacher greeting \\
\hline & - Teacher gives instruction before starting the lesson and check the students attends list. & & - Students listening carefully about teacher explanation \\
\hline \[
\begin{gathered}
\mathrm{T} \\
\mathrm{E} \\
\mathrm{~A} \\
\mathrm{C} \\
\mathrm{H} \\
\mathrm{I}
\end{gathered}
\] & \multirow[t]{2}{*}{\begin{tabular}{l}
- Teacher gives the explanation to students about lesson plan, standard competence, and also about the method that teacher's use. \\
- Greeting and checking students' attend list.
\end{tabular}} & & - Students listening carefully about teacher explanation \\
\hline & & & - Students giving responding of teacher greeting \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline \[
\begin{gathered}
\text { W } \\
\mathrm{H} \\
\mathrm{I} \\
\mathrm{~L} \\
\mathrm{E} \\
- \\
\\
\\
\\
\hline
\end{gathered}
\] & \begin{tabular}{l}
- The teacher present the material about vocabulary that topic is vegetables and members of family. \\
- The teacher divided class into small group of five to six members learning students. \\
- The teacher gives the worksheet in their teams to master the material about the topic above. \\
- The teacher's make a some question from the teacher presentation and worksheet. \\
- The teacher apply the game in end of unit or lesson.
\end{tabular} & \begin{tabular}{l}
1.Teach \\
2.Team \\
Study \\
3.Tournamen
\end{tabular} & \begin{tabular}{l}
- Students listening carefully about teacher explanation \\
- Students make a group base on teacher instruction, and they join the group at their group \\
- Students work on worksheet in their teams to master the material. \\
- The students listening carefully what the teacher ask. \\
- The students play acdemic in the end of unit or lesson.
\end{tabular} \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline & \begin{tabular}{l}
- The teacher give explanation about the game that apply. A students one card get number and have to answer numbers appropriate question which on that card. \\
- The teacher publish the best group that get the best score. Teacher give the sertificate with the set criteria
\end{tabular} & 4.Recognition & \begin{tabular}{l}
- The students who answer the question with the right answer will get the score. The score collected by students in the end of study. \\
- The students get the sertificate or reward who get the best score with the set criteria.
\end{tabular} \\
\hline \[
\begin{gathered}
\hline \mathrm{P} \\
\mathrm{O} \\
\mathrm{~S} \\
\mathrm{~T} \\
\hline- \\
\mathrm{T} \\
\mathrm{E} \\
\mathrm{~A} \\
\mathrm{C} \\
\mathrm{H} \\
\mathrm{I} \\
\mathrm{~N} \\
\mathrm{G} \\
\hline
\end{gathered}
\] & - After giving treatment to students the teacher ask to students how their felling after teacher teach by using teams games tournaments method. & & - Students gives some comment or responding. \\
\hline
\end{tabular}

\section*{B. Review Related Finding}

There are some related findings to this reseach :
The first research's name is " Nuria Siregar'. The effect of cooperative learning Teams-Games Tournnaments (TGT) to students speaking ability at grade \(X\) MAS PPDM Basilam Baru Kota Pinang. The concluding of her research is after calculating the data, the score experimental class higher than control class, and from the calculation of 2.83 and of 2.04 , it means that, \(t_{0}\) was higher than \(t_{t}(2.83>2.04)\). So, " There was an effect of using Teams Games Tournaments (TGT) on Speaking Ability". It means that the hypothesis of the resarch is accepted. \({ }^{29}\)

The second is Komang Satya Perma " The Effect of using Cooperative Learning Teams Games Tournament on The Vocabulary Achievment of the eight year students of SMP Laboratorium Singaraja. The concluding of his research is after calculating the data, the score experimental class higher than control class, and from the calculation of 2.41 and of 1.92 . It means that, \(t_{0}\) was higher than \(\mathrm{t}_{\mathrm{t}}(2.41>1.92)\). It can be concluded that there is significant difference in vocabulary achievment of the students who are taught throuhg TGT and the students who are taught by using conventional method. \({ }^{30}\)

\footnotetext{
\({ }^{29}\) Nuria Siregar, The effect of Cooperative Learning Teams-Games Tournnaments (TGT) to students speaking ability, (STAIN: Padangsidimpuan), p. 55
\({ }^{30}\) Komang Satya Perma, The Effect of using Cooperative Learning Teams Games Tournament on The Vocabulary Achievment. Jurusan Pemdidikan Bahasa Inggris, Fakultas Bahasa \& Seni Pendiddikan Ganesha Singaraja, Indonesia email ; satya_intershuty @ovi.com
}

The third is Rahma Deni with the title, " The Effect of Teams Games Tournament (TGT) Types on Students' Reading Descriptive Text Mastery. The concluding of his research is after calculating the data, the score experimental class higher than control class, and from the calculation of 2.47 and of 1.67 . It means that, \(\mathrm{t}_{0}\) was higher than \(\mathrm{t}_{\mathrm{t}}(2.41>1.67)\). So, there was a significant effect of Cooperative Learning Method Temas Games Tournaments Types on Students'Reading Descriptive Text at SMP 5 Padangsdimpuan. \({ }^{31}\)

Based on the related findings above, the researcher concludes that Teams Games Tournament (TGT) can influence the students' vocabulary mastery. So, the reseacher wants to use Teams Games Tournament (TGT) method on students' vocabulary mastery.

\footnotetext{
\({ }^{31}\) Rahma Deni, the effect of Teams Games Tournament (TGT) Types on Students' Reading Descriptive Text Mastery at SMP 5 PSP.
}

\section*{C. Conceptual Frame work}

Based on the review of related theories above, the conceptual framework can see from figure below:


Based on the scheme above, the researcher will take 2 classes of seventh grade in SMP N 5 Padangsidimpuan. Two classes will become experiment classes and control class. Class of the experiment classes will be treated by using Teams Games Tournaments (TGT) after pre-test, and control class will be treated by conventional method after pre-test.

\section*{D. Hypothesis}

Creswell stated, "hypothesis is predictions the researcher holds about the relationship among variables". \({ }^{32}\) Then, L.R. Gay stated, "A hypothesis is a tentative prediction result of the research findings." \({ }^{33}\)

It means hypothesis is provisional answer of prediction result in a research. The hypothesis still need an improvement by the datas that have been collected as the final result of the research. A hypothesis is accepted if the result is suitable with the hypothesis, while it is rejected if the result is lose from the hypothesis

Based on the defenitions above, the hypothesises of this research are, as follows:
1. \(H_{a}\) : There is a significant effect of using Teams Games Tournaments (TGT) method on vocabulary mastery at the seventh grade students of SMP 5 Padangsidimpuan

\footnotetext{
\({ }^{32}\) John W. Creswell, Research Design: Qualitative, Quantitative, and Mixed Methods Approaches \(2^{\text {nd }}\) Edition, (USA: Sage Publication Inc., 2003), p. 108.
\({ }^{33}\) L. R Gay and Peter Airaisan, Educational Research for Analysis and Application, (America: Prentice Hall, 1992), p. 71.
}
2. \(\mathrm{H}_{0}\) : There is no a significant effect of using Teams Games Tournaments (TGT) method on vocabulary mastery at the seventh grade students of SMP N 5 Padangsidimpuan .

\section*{CHAPTER III}

\section*{RESEARCH METHODOLOGY}

\section*{A. Place and Time of Research}

This research will be done at SMP Negeri 5 Padangsidimpuan. It is located at Jl. Perintis kemerdekaan, Padangsidimpuan. It is number 61 in Padangmatinggi. It is about 4 kilometres from the central town.

It is in the Southeast from Padangsidimpuan town. The subject of research is at the grade VII students at SMP Negeri 5 Padangsidimpuan 2017/ 2018 Academic years. This research is done from arranging proposal until finishing the thesis.

\section*{B. Research Design}

The kind of this research is quantitative method. Where, "quantitative method is based on the collection and analysis of numerical data, usually obtained from questionnaires, tests, checklists and other formal paper and pencil instruments." \({ }^{1}\)

In this research, the researcher uses experimental research. Gay said "Experimental research is the only type of the research that can test hypotheses to establish cause and effect". \({ }^{2}\) More, in Creswell"experimental research include the experiment with the random assignment of the subject to treatment condition as well as quasi experiment that use none

\footnotetext{
\({ }^{1}\) L.R. Gay and PeterAirasian, Educational Research: Competencies for Analysis and Application (American: Prentice Hall, 2000)p. 8.
\({ }^{2}\) Ibid, p. 367.
}
randomized". \({ }^{3}\) Moreover "Experimental research is the only type of research that can be tests hypotheses to establish cause and effect relationship." \({ }^{4}\) So, the researcher concluded experimental research is one of research design kinds which have purpose to know or to find causal-effect from the variables.

In this research, the researcher use two class, as an experimental class and control class. The experiment class is the class that teach with Teams Games Tournaments method, as a treatment. Then, the control class is the class that teach with use conventional method or without treatment. The research design of this research can be seen from the table:

Table. 1 Pretest-Posttest Control Group Design
\begin{tabular}{|l|l|l|l|}
\hline R & \(\mathrm{O}_{1}\) & X & \(\mathrm{O}_{2}\) \\
\hline R & \(\mathrm{O}_{3}\) & & \(\mathrm{O}_{4}\) \\
\hline
\end{tabular}

Notes:
\(\mathrm{R} \quad\) : The sample of the research
\(\mathrm{O}_{1} \quad\) : Pretest in experimental class
\(\mathrm{O}_{2} \quad\) : Posttest in experimental class
X : Treatment
\(\mathrm{O}_{3} \quad\) : Pretest in control class
\(\mathrm{O}_{4} \quad\) : Post test in control class \({ }^{5}\)

\section*{C. Population and Sample}
1. Population

Suharsimi Arikunto says, "A population is a set (collection) of all elements processing one or more attributes of interest. \({ }^{6}\) Based on the

\footnotetext{
\({ }^{3}\) JhonCreswell. Research Design Qualitative, Quantitative and Mixed Methods Approaches Second Edition (USA: Prentice hall.,2000), p. 14.
\({ }^{4}\) Ibid, p. 367.
\({ }^{5}\) Sugiyono, Metode Penelitian Kuantitatif, Kualitatif dan Kombinasi (Mixed Methods) (Alfabeta: Bandung, 2014) p. 76
\({ }^{6}\) Suharsimi Arikunto, Prosedur Penelitian Suatu Pendekatan Praktek, (Jakarta: Rineka Cipta, 1993), p. 108.
}
quotation, the population of research consists of all of the students at SMP Negeri 5 Padangsidimpuan.

The population of the research consist of 11 classes with 273 students. It can be seen the following table:

Table 2. The Population of The Seventh Grade Students SMP Negeri 5 Padangsidimpuan
\begin{tabular}{|l|l|l|l|l|}
\hline NO & CLASS & Male & Female & TOTAL \\
\hline 1 & VII-1 & 16 & 10 & 26 \\
\hline 2 & VII-2 & 16 & 10 & 26 \\
\hline 3 & VII-3 & 15 & 10 & 25 \\
\hline 4 & VII-4 & 10 & 10 & 20 \\
\hline 5 & VII-5 & 16 & 10 & 26 \\
\hline 6 & VII-6 & 9 & 13 & 24 \\
\hline 7 & VII-7 & 16 & 9 & 25 \\
\hline 8 & VII-8 & 9 & 14 & 23 \\
\hline 9 & VII-9 & 7 & 15 & 22 \\
\hline 10 & VII-10 & 12 & 10 & 22 \\
\hline 11 & VII-11 & 16 & 10 & 26 \\
\hline \multicolumn{2}{|l|}{ TOTAL } & \(\mathbf{1 4 2}\) & \(\mathbf{1 2 1}\) & \(\mathbf{2 7 3}\) \\
\hline
\end{tabular}
(source : data of students SMP N 5 Padangsidimpuan from Vice of Headmaster)
2. Sample

Arikunto says, "Sample is a part of population which will be researched". \({ }^{7}\) In this research, the researcher used random sample to take the class research. The researcher takes two classes as a sample. Ranjit Kumar says that with draw the entire sample by using random sampling technique, each element in the population has equal opportunities and probabilities to chose. \({ }^{8}\)

\footnotetext{
\({ }^{7}\) Ibid., p. 109.
\({ }^{8}\) Ranjit Kumar, Research Methodology: A Step-by-step Guide for Beginners, \(3{ }^{\text {rd }}\) ed, p. 208.
}

So, the researcher's reason uses random sampling technique is because of all the sample has the same chance to be chosen and it is the best single way to obtain a representative sample.

Then, the researcher used the trick to take the sample using a lottery technique of taking random sampling. All the population or all the grade VII class are folded, then, the researcher shake them. After that, the researcher took 2 folded classes.

Finally, the reseracher get two classes of grade VII, they are VII-8 (22 students) and VII-10 (22 students). They are 44 students. Then, the researcher dicides grade VII-8 as the experimental class and VII-10 is control class. The detailed sample is in the table below:

Table 3: Sample of the Research
\begin{tabular}{|l|l|l|}
\hline No & Class & Number \\
\hline 1 & Experimental Class VII-8 & 22 \\
\hline 2 & Control Class VII-10 & 22 \\
\hline & Total & 44 \\
\hline
\end{tabular}

To know the homogeneity of the samples, researcher do homogeneity and normality test.
1) Normality Test

Normality test is used to know whether the data normal or not. The data can be tested by using Chi-quadrate, as follow: \({ }^{9}\)
\[
\begin{aligned}
& x^{2}=\sum\left(\underline{f_{0}-\mathrm{f}_{\mathrm{h}}}\right)^{2} \\
& \mathrm{f}_{\mathrm{h}} \\
& \text { Where; } \\
& \mathrm{x}^{2} \quad=\text { Chi-quadrate }
\end{aligned}
\]

\footnotetext{
\({ }^{9}\) Mardalis, Metode Penelitian: Suatu Pendekatan Proposal, (Jakarta: Bumi Aksara, 2003), p.85.
}
\(\mathrm{f}_{0}=\) Frequency is gotten from sample/result of observation (questioner).
fh \(\quad=\) Frequency is gotten from sample as image from frequency is hoped from population.

To calculate the result of Chi-Quadrate, it is used significant level \(5 \%(0,05)\) and degree of freedom as big as total of frequency is lessened \(3(\mathrm{dk}=\mathrm{k}-1)\). If result \(\mathrm{x}^{2}{ }_{\text {count }}<\mathrm{x}_{\text {table }}\), it can be concluded that data is distributed normal.
2) Homogeneity

Homogeneity test is used to know whether control class and experimental class have the same variant or not. If both of classes are same, it can be called homogenous. To test it, the researcher used formula as follow:
\[
\begin{aligned}
& \mathrm{F}=\frac{\text { the } \text { biggest variant }}{\text { the smallest variant }} \\
& \text { Hypothesis is accepted if } \mathrm{F}_{\text {count }} \leq \mathrm{F}_{\text {table }} \\
& \\
& \text { Hypothesis is rejected if } \mathrm{F}_{\text {count }} \geq \mathrm{F}_{\text {table }}
\end{aligned}
\]

\section*{D. Definition of Operational Variables}

Based on the explanation of variables, the meaning of Teams Games Tournament (TGT), and vocabulary are detailed below:
1. Teams Games Tournament (TGT)

Teams Games Tournament (TGT) is is one method of cooperative learning. This method make students working in group, study enjoyablr, and make fun in learning process
2. Vocabulary

Vocabulary is knowledge about the collection of words with the meaning. That is used to master the skill in language such as listening, speaking, reading and writing.

\section*{E. Instrument of Collecting Data}

A research must have an instrument in this research because a good instrument can go guarantee for taking the valid data. In addition, Suharsimi Arikunto says, "Instrument of the research is a tool of facility is used by the researcher in collecting data, \({ }^{10}\) So that the process is easier and better with the more careful, complete and systematic ways.

In this research, the main instrument of this research is test. The researcher give the test to know students' vocabulary mastery. To get the data from the students, the researcher collected by multiple choice test. The test is a set of vocabulary about identify name of colours, member of family, and names of days and months. To measure students' vocabulary mastery uses the indicator, as follows :

\footnotetext{
\({ }^{10}\) Suharsimi Arikunto, Op. Cit., p. 106.
}

Table 4 Indicator of Vocabulary
\begin{tabular}{|c|c|c|c|c|}
\hline NO & \multirow{6}{*}{\[
\begin{gathered}
\text { PRE } \\
\text { TEST }
\end{gathered}
\]} & INDICATOR & TOPIC & Number of Items \\
\hline \multirow[t]{5}{*}{1.} & & \multirow[t]{2}{*}{\begin{tabular}{ll} 
Identify & The \\
Meaning
\end{tabular}} & 1. Vegetables & \[
\begin{aligned}
& 1,26,9,11,13 \\
& , 15,17,18,19 \\
& , 21,25,50 \\
& \hline
\end{aligned}
\] \\
\hline & & & 2. Member of family & \[
\begin{aligned}
& 29,35,38,40, \\
& 42,43,44
\end{aligned}
\] \\
\hline & & \multirow[t]{3}{*}{Memorize The word} & 1. Vegetables & \[
\begin{aligned}
& \hline 3,5,7,8,10,1 \\
& 2,14,20,22,2 \\
& 3,24,46,47,4 \\
& 8,49
\end{aligned}
\] \\
\hline & & & 2. Member of family & \[
\begin{aligned}
& 26,27,28,30, \\
& 31,32,33,34, \\
& 36,37,39,41, \\
& 45
\end{aligned}
\] \\
\hline & & & Total & 50 \\
\hline \multirow[t]{5}{*}{2.} & \multirow[t]{5}{*}{\[
\begin{aligned}
& \text { POST- } \\
& \text { TEST }
\end{aligned}
\]} & \multirow[t]{2}{*}{\begin{tabular}{ll} 
Identify & The \\
Meaning
\end{tabular}} & \multicolumn{2}{|l|}{\begin{tabular}{l|l|} 
1. Vegetables & \begin{tabular}{l}
\(3,6,9,11,12\), \\
\(13,17,18,19\), \\
21,50
\end{tabular} \\
\hline
\end{tabular}} \\
\hline & & & 2. Member of family & \[
\begin{aligned}
& 1,3,5,6,8,10, \\
& 45,49
\end{aligned}
\] \\
\hline & & Memorize The word & 1. Vegetables & \(3,5,7,8,10,1\)
\(2,14,20,22,2\)
\(3,24,46,47,4\)
8,49 \\
\hline & & & 2. Member of family & \[
\begin{aligned}
& 26,27,28,30, \\
& 31,32,33,34, \\
& 36,37,39,41, \\
& 45
\end{aligned}
\] \\
\hline & & & Total & 50 \\
\hline
\end{tabular}

Based on the above indicator, Riduwan explains in his book "Belajar Mudah Penelitian untuk Guru-Karyawan Peneliti Pemula" there are four range of score of the result test. they are Excellent, good, average/enough and poor. \({ }^{11}\) It is shown at table below :

Table 5. Score of The Result Test
\begin{tabular}{|l|l|}
\hline Range of Real Score & Frequency \\
\hline \(80-100\) & Excellent \\
\hline \(61-80\) & Good \\
\hline \(41-60\) & Average/ enough \\
\hline \(21-40\) & Poor \\
\hline
\end{tabular}
(Source: Riduan, Belajar Mudah Penelitian untuk Guru-Karyawan Peneliti Muda)

\section*{F. Validity and Reliability}

\section*{1. Validity}

Suharsimi Arikunto said that "validity is standard that show the level of validity or legally of instrument. \({ }^{12}\) Validity is when a test must measures what it is intended to measure and what has been taught. \({ }^{13}\) In this research, the researcher uses construct validity to establish validity of the instrument. Construct validity concerns the qualities that the task measures, how far it actually represents speaking abilities. \({ }^{14}\)

So in this research, the speaking test was validated by checking the test to the expert person. The expert person is the English teacher of grade VII students itself of SMP N 5 Padangsidimpuan. The English teacher

\footnotetext{
\({ }^{11}\) Riduwan, Belajar Mudah Penelitian untuk Guru-Karyawan Peneliti Pemula, (Bandung: Alfabeta, Cet. 1, 2005), p. 89.
\({ }^{12}\) Suharsimi Arikunto, Op. Cit., p. 169
\({ }^{13}\) Ken Hyland, Second Language Writing, (New York: Cambridge University Press, 2003), p. 217
\({ }^{14}\) Ibid., p. 218
}
will check and recheck whether the vocabulary test topic has been suitable to the syllabus, curriculum, and the English textbook of the English subject or not to the grade VII students of SMP N 5 Padangsidimpuan. More, the test will be signed by the English teacher.

\section*{2. Reliability}

Realiability is also needed to create a good test because a test must be reliable as a measuring instrument. The instrument is said reliable when the instrument believable to use as an instrument of collecting data because the instrument is good.

\section*{G. Procedures of Data Collection}

To get the data from the students, the researcher will collect the data by giving pre-test and post-test to students. Test is some of question or view and other tool is used for measure skill, knowledge and intelligence ability. The test was divided into three kinds: they were pre-test, treatment, and posttest. The further explanation is as follows:

This research conducted pre-test and post-test, they were:

\section*{1. Pre-test}

Pre-test a test that is given before doing the treatment to the students. It is needed to know the students' ability in experiment and control class before the researcher gives the treatment to experiment class. It is also used to find out the homogeneity and normality level of the sample.

\section*{2. Treatment}

After giving the pre-test, the students will be given treatment. The experiment class will be taught by Teams Games Tournament method. While the control class will be taught by conventional strategy.
3. Post-test

After giving treatment, the researcher will conduct post-test. It is different test with the pre-test. This post-test is the final test on the research, it has function to measure the treatment, whether is an effect or not between using Teams Games Tournament method on students' vocabulary mastery.

\section*{H. Technique ofAnalyzing Data}

The analysis of data was done to find out the mastery of the two of group that have been divided into experimental and control class. The technique of analyzing data in this research used the following \(t\)-test formula:
1) Requirement test
a) Normality test

Normality test is used to know whether the data of research is normal or not. The researcher uses normality test with using ChiQuadrate formula, as follow:
\{ EMBED Equation. 3 \}

Where:
\(\mathrm{x}^{2}=\) Chi-Quadrate
\(\mathrm{f}_{\mathrm{o}}=\) Frequency is gotten from the sample/result of observation (questioner)
\(\mathrm{f}_{\mathrm{h}}=\) Frequency is gotten from the sample as image from frequency is hoped from the population. \({ }^{15}\)

To calculate the result of chi-quadrate, it use significant level 5\%
\((0,05)\) and degree of freedom as big as total of frequency is lessened 3 ( \(\mathrm{dk}=\mathrm{k}-3\) ), if result \(\mathrm{x}^{2}{ }_{\text {count }}<\mathrm{x}^{2}\) table. So, it can be concluded that data is distributed normal.
b) The homogeneity of test

Homogeneity test is used to know whether control class and experimental class have the same variant or not. If both of classes are same, it is can be called homogeneous. Homogeneity is the similarity of variance of the group will be compared. So, the homogeneity test has function to find out whether the data homogeneity or not. It uses Harley test, as follow:
\[
\begin{aligned}
& \mathrm{F}=\frac{\text { Thebiggestvariant }}{\text { Thesmallestvariant }} \\
& \text { Hypothesis is accept if }\{\text { EMBED Equation. } 3\} \\
& \text { Hypotheses is reject if }\{\text { EMBED Equation. } 3\} \\
& \text { Hypothesis is reject if } \mathrm{F} \leq \mathrm{F} \frac{1}{2} a\left(\mathrm{n}_{1}-1\right)\left(1=\mathrm{n}_{2}-1\right) \text {, while if } \\
& \mathrm{F}_{\text {count }}>\mathrm{F}_{\text {table }} \text { hypothesis is accept. }{ }^{16}
\end{aligned}
\]

\footnotetext{
\({ }^{15}\) Ibid, p. 85
\({ }^{16}\) Agus Irianto, Statistik Konsep Dasar dan Aplikasinya. ( Padang: P2LPTK Departemen Pendidikan Nasional, 2003), p. 276
}

To conclude the significant level \(5 \%(0.05)\) and dk numerator is ( \(\mathrm{n}_{1}-\) \(1)\), while dkdetominators is \(\left(n_{2}-1\right)\).
2) Techniques of Hypothesis

The technique in analyzing the data is used by t-test, because it is aimed to examine the difference of two variables. Such examination performed both on pre-test and post-test score from the experimental class and control class. There is a significant students' speaking mastery by using small group discussion \(\left(\mu_{1}>\mu_{2}\right)\) and there is no significant students' speaking mastery by using conventional method ( \(\mu_{1}=\mu_{2}\) ).

From explanation above, to test hypothesis researcher uses formula as follows:

\section*{\{ EMBED Equation. 3 \}}

Where:
Tt : The value which the statistical significance
\(\mathrm{M}_{1}\) : The average score of the experimental class
\(\mathrm{M}_{2}\) : The average score of the control class
\(\mathrm{X}_{1}{ }^{2}\) : Deviation of the experimental class
\(\mathrm{X}_{2}{ }^{2}\) : Deviation of the control class
\(\mathrm{n}_{1} \quad\) : Number of experimental
\(\mathrm{n}_{2} \quad:\) Number of control \({ }^{17}\)

\footnotetext{
\({ }^{17}\) Suharsimi Arikunto, ProsedurPenelitianSuatuPendekatanPraktekEdisiRevisi II, (Jakarta: RinekaCipta, 1993), p. 269
}

\section*{CHAPTER IV}

\section*{THE RESEARCH RESULT}

As mentioned in earlier chapter, in order to evaluate the of effect of Teams Games Tournaments on Students'vocabulary Mastery, the researcher has calculated the data using pre-test and post-test. The researcher used the formulation of T-test the hypothesis. Next, the researcher described the data as follows:

\section*{A. Description of Data}
1. Description of Data before Using Teams Games Tournaments Method
a. Score of Pre-test Experimental Class

The result of the test in experimental class before using Teams
Games Tournaments on students' vocabulary mastery in the appendix
15 and 16 , can be seen in following table:
Table 6. The Score of Experimental Class in Pre-test
\begin{tabular}{|c|c|}
\hline Highest score & 84 \\
\hline Lowest score & 34 \\
\hline Mean & 58.05 \\
\hline Median & 59 \\
\hline Modus & 59.1 \\
\hline Range & 50 \\
\hline Interval & 10 \\
\hline Standard deviation & 10.6 \\
\hline Variant & 148.77 \\
\hline
\end{tabular}

Based on the table, the researcher got the highest score was 84 and the lowest score was 34 , mean was 58.05 , median was 59 , modus was
59.01 , range was 50 , interval was 10 , standard deviation was 10.6 and the last variant was 147.77. Then, the calculation of the frequency distribution of the students' score in experimental class can be applied into table frequency distribution as follows:

Table 7. Frequency Distribution of Experimental Class (Pre-test)
\begin{tabular}{|c|c|c|c|c|}
\hline No & Interval & MidPoint & F & Percentages \\
\hline 1 & \(34-43\) & 38.5 & 2 & \(9 \%\) \\
\hline 2 & \(44-53\) & 48.5 & 4 & \(18 \%\) \\
\hline 3 & \(54-63\) & 58.5 & 9 & \(41 \%\) \\
\hline 4 & \(64-73\) & 68.5 & 5 & \(23 \%\) \\
\hline 5 & \(74-83\) & 78.5 & 0 & \(0 \%\) \\
\hline 6 & \(84-93\) & 88.5 & 2 & \(9 \%\) \\
\hline \multicolumn{6}{|c|}{\(i=10\)} & - & 22 & \(100 \%\) \\
\hline
\end{tabular}

Based on the table above, the students score that is there in class interval between 34-43 was 2 students (9\%), class interval between 44-53 was 4 students ( \(18 \%\) ), class interval \(54-63\) was 9 students ( \(41 \%\) ), class interval 64-73 was 5 students ( \(23 \%\) ), and the class interval \(84-93\) was 2 students (9\%).

Based on the table above, it could be seen the histogram on the following figure:

\section*{Frequency}


Figure 1: Description of Experimental Class (Pre-Test)

Based on the table and histogram above, the students' score from 38.5 was 2 students, the student score 48.5 was 4 students, the students' score 58.5 was 9 students, the students' score 68.5 was 5 students, and the students’ 88.5 was 2 students.

\section*{b. Score of Pre-Test Control Class}

The result of the pre-test of control class, the researcher calculated is gotten by the students in answering the test at the control class. The score of pre-test control class can be seen in following table:

Table 8. The Score of Control Class in Pre-Test
\begin{tabular}{|c|c|}
\hline Highest score & 80 \\
\hline Lowest score & 40 \\
\hline Mean & 56.3 \\
\hline Median & 62.14 \\
\hline Modus & 60.78 \\
\hline Range & 40 \\
\hline Interval & 8 \\
\hline Standard deviation & 11.2 \\
\hline Variant & 145.63 \\
\hline
\end{tabular}

Based on the table, the researcher got the highest score was 80 and the lowest score was 40 , mean was 56.3 , median was 62.14 , modus was 60.78, range was 40 , interval was 8 , standard deviation was 11.2 and the last variant was 145.63. Then, the calculation of the frequency distribution of the students' score of control class can be applied into table frequency distribution as follows:

Table 9. Frequency Distribution of Control Class (Pre-Test)
\begin{tabular}{|c|c|c|c|c|}
\hline No & Interval & Mid Point & Frequency & Percentages \\
\hline 1 & \(40-47\) & 43.5 & 2 & \(9 \%\) \\
\hline 2 & \(48-55\) & 51.5 & 4 & \(18 \%\) \\
\hline 3 & \(56-63\) & 59.5 & 6 & \(27 \%\) \\
\hline 4 & \(64-71\) & 67.5 & 5 & \(23 \%\) \\
\hline 5 & \(72-79\) & 75.5 & 3 & \(14 \%\) \\
\hline 6 & \(80-87\) & 83.5 & 2 & \(9 \%\) \\
\hline \multicolumn{6}{|c|}{\(i=8\)} & - & 22 & \(100 \%\) \\
\hline
\end{tabular}

Based on the table, it can be shown that the students' score that is there in class interval between \(40-47\) was 2 students ( \(9 \%\) ), class interval
between \(48-55\) was 4 students ( \(18 \%\) ), class interval \(56-63\) was 6 students (27\%), class interval 64-71 was 5 students (23\%), class interval 72-79 was 3 ( \(14 \%\) ) and the last class interval \(80-87\) was 2 students ( \(9 \%\) ).

Based on the table, it could be seen the histogram on the following figure:

\section*{Frequency}


Figure 2: Description of Control Class (Pre-Test)

Based on the table and the histogram above, the students' score 43.5 was 2 students, the students' score 51.5 was 4 students, the students' score 59.5 was 6 students, the students' score 67.5 was 5 students, the students's score 75.5 was 3 and the students' score 83.5 was 2 students.

\section*{2. Description of Data After Using Teams Games Tournaments Method}

\section*{a. Score of Post-Test Experimental Class}

The result of the calculation that had been gotten by the students in answering the question (test) after the researcher did the treatment by using Teams Games Tournaments Method can be seen the table:

Table 10. The Score of Experimental Class in Post Test
\begin{tabular}{|c|c|}
\hline Highest score & 90 \\
\hline Lowest score & 60 \\
\hline Mean & 84.59 \\
\hline Median & 76.66 \\
\hline Modus & 79.18 \\
\hline Range & 30 \\
\hline Interval & 6 \\
\hline Standard deviation & 7.5 \\
\hline Variant & 63.76 \\
\hline
\end{tabular}

Based on the table, the researcher got the highest score was 90 and the lowest score was 60 , mean was 84.59 , median was 76.66 , modus was 79.18, range was 30 , interval was 6 , standard deviation was 7.5 and the last variant was 63.76 . Then, the calculation of the frequency distribution of the students' score of experiment class can be applied into table frequency distribution as follows:

Table 11. Frequency Distribution of Students' Score
\begin{tabular}{|c|c|c|c|c|}
\hline No & Interval & Mid Point & Frequency & Percentages \\
\hline 1 & \(60-65\) & 62.5 & 2 & \(10 \%\) \\
\hline 2 & \(66-71\) & 68.5 & 4 & \(19 \%\) \\
\hline 3 & \(72-77\) & 74.5 & 5 & \(23 \%\) \\
\hline 4 & 78.83 & 80.5 & 7 & \(32 \%\) \\
\hline 5 & \(84-89\) & 86.5 & 2 & \(10 \%\) \\
\hline 6 & \(90-95\) & 92.5 & 1 & \(6 \%\) \\
\hline \multicolumn{2}{|c|}{\(i=7\)} & - & 22 & \(100 \%\) \\
\hline
\end{tabular}

Based on the table above, it can be shown that the students score is there in class interval between \(60-65\) was 2 student ( \(10 \%\) ), class interval between 66-71 was 4 students (19\%), class interval \(72-77\) was 5 students (23\%), class interval \(78-83\) was 7 students ( \(32 \%\) ), clas interval \(84-89\) was 2 students (9\%) and the class interval \(90-95\) was 1 students (6\%).

Based on the table above, it could be seen the histogram on the following figure:

\section*{Frequency}


\section*{Score}

Figure 3: Description of Experimental Class (Post-Test)

Based on the table and the histogram above, the students' score 62.5 was 2 student, the students' score 68.5 was 4 students, the students' score 74.5 was 5 students, the students' score was 80.5 was 7 students, the students' score 86.5 was 2 students and the students' 92.5 was 1 students.

\section*{b. Score of Post-Test Control Class}

The result of control class in post-test, the researcher took class VII -10 as control class, could had been gotten by the students in answering the question (test) after the researcher taught vocabulary mastery by using conventional method can be seen the table below:

Table 12. The Score of Control Class in Post-Test
\begin{tabular}{|c|c|}
\hline Highest score & 80 \\
\hline Lowest score & 50 \\
\hline Mean & 73.74 \\
\hline Median & 74 \\
\hline Modus & 69 \\
\hline Range & 30 \\
\hline Interval & 6 \\
\hline Standard deviation & 8.28 \\
\hline Variant & 62.75 \\
\hline
\end{tabular}

Based on the table, the researcher got the highest score was 80 and the lowest score was 50 , mean was 73.74 , median was 74 , modus was 69 , range was 30 , interval was 6 , standard deviation was 8.28 and the last variant was 62.75 . Then, the calculation of the frequency distribution of the students' score of control class can be applied into table frequency distribution as follows:

Table 13. Frequency Distribution of Students' Score
\begin{tabular}{|c|c|c|c|c|}
\hline No & Interval & Mid Point & Frequency & Percentages \\
\hline 1 & \(50-55\) & 52.5 & 2 & \(9 . \%\) \\
\hline 2 & \(56-61\) & 58.5 & 4 & \(18 \%\) \\
\hline 3 & \(62-67\) & 64.5 & 5 & \(23 \%\) \\
\hline 4 & \(68-73\) & 70.5 & 6 & \(27 \%\) \\
\hline 5 & \(74-79\) & 76.5 & 3 & \(14 \%\) \\
\hline 6 & \(80-85\) & 82.5 & 2 & \(9 \%\) \\
\hline \multicolumn{2}{|c|}{\(i=7\)} & - & 22 & \(100 \%\) \\
\hline
\end{tabular}

Based on the table above, it can be shown that the students score is there in class interval between \(50-55\) was 2 student ( \(9 \%\) ), class interval between \(56-61\) was 4 students ( \(18 \%\) ), class interval \(62-67\) was 5 students (23\%), class interval 68-73 was 6 students (27\%), class interval 74-79 was 3 students ( \(14 \%\) ) and the class interval \(80-85\) was 2 students ( \(9 \%\) ).

Based on the table above, it could be seen the histogram on the following figure:

\section*{Frequency}


Figure 4: Description of Control Class (Post-Test)

Based on the table and the histogram above, the students' score 52.5 was 2 student, the students' score 58.5 was 4 students, the students' score 64.5 was 5 students, the students score 70.5 was 6 students, students'score 76.5 was 3 students and the students' score 82.5 was 2 students.

\section*{B. Description of the Data Comparison between Pre-Test and Post-Test of} Experimental and Control Class
1. The Comparison Data between Pre-test Control and Exprimental Class

The comparison the data between pre-test of control class and pretest of exprimental class by using teams games tournaments method.

Based on the description data in pre-test of experimental and control class, there was comparison score between pre-test experimental class before gave a treatment by using Teams Games Tournaments Method. It can be seen the table below:

Table 14. The Comparison Score of Students' Vocabulary Mastery in Pre-test
(Control Class and Experimental Class)
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|c|}{ Students' Vocabulary Mastery in Pre-test (control class) } \\
\hline No & Interval & Mid Point & F & Percentages \\
\hline 1 & \(40-47\) & 43.5 & 2 & \(9 \%\) \\
\hline 2 & \(48-55\) & 51.5 & 4 & \(18 \%\) \\
\hline 3 & \(56-63\) & 59.5 & 6 & \(41 \%\) \\
\hline 4 & \(64-71\) & 67.5 & 5 & \(23 \%\) \\
\hline 5 & \(72-79\) & 75.5 & 3 & \(14 \%\) \\
\hline 6 & \(80-87\) & 83.5 & 2 & \(9 \%\) \\
\hline \multicolumn{5}{|c|}{ Students' Vocabulary Mastery in Pre-test (exprimental class) } \\
\hline No & Interval & Mid Point & Frequency & Percentages \\
\hline 1 & \(34-43\) & 38.5 & 2 & \(9 . \%\) \\
\hline 2 & \(44-53\) & 48.5 & 4 & \(18 \%\) \\
\hline 3 & \(54-63\) & 58.5 & 9 & \(41 \%\) \\
\hline 4 & \(64-73\) & 68.5 & 5 & \(23 \%\) \\
\hline 5 & \(74-83\) & 0 & 0 & \(0 \%\) \\
\hline 6 & \(84-93\) & 88.5 & 2 & \(6 \%\) \\
\hline
\end{tabular}

Based on the table, it can be shown that the students score is there in class interval between that the highest interval score in pre-test control class was 80-87 (2students/9\%) and the lowest interval score was 40-47 (2 students/9\%), meanwhile the highest interval score in exprimental class was 84-93 (2students/9\%) and the lowest score was 34-43 (2 students/9\%).

Based on the table, it could be seen the histogram on the following figure:


Figure 5. Histogram the Comparison Data of Voabulary Mastery in Pre-test
(Control Class and Experimental Class)
Based on the histogram above, the frequency of students' score of control class from 44 up to 47 ( 2 students/9\%), and 34 up to 43 (2 student/9\%) of exprimental class in pre-test; 48 up to 55 (4 students/18\%) of control class, and 44 up to 55 ( 4 students/19\%) of exprimental class; 56 up to 63 ( 6 students/27\%) of control, and 54 up to 63 ( 9 students/41\%) of
expriment; 64 up to 71 ( 5 students/23\%) of control, and 64 up to 73 (5 students/23\%) of expriment; 72 up to 79 (3 students/14\%) of control, and 74 up to \(83(0\) students/0\%) iof expriment; 80 up to \(987(2\) students/9\%) of control, and 84 up to 93 (2students/9\%) inof expriment.

Then, the interval which had highest frequency in pre test of control class was \(56-63\) (6students \(/ 27 \%\) ) and the interval which had lowest frequency was \(40-47\) and \(80-87\) ( 2 students/9\%). In pret test of experimental class, the interval which had highest frequency was 54-63 (9 students \(/ 41 \%\) ) and the interval which had lowest frequency was \(34-43\) and 84-93 (2students/9\%).

\section*{2. The Comparison Data between Pre- test and Post test of Control Class.}

The comparison data between pre-test and post-test by using conventional method. Based on the description data in pre-test and posttest of control class, there was the comparison score between pre-test control class before and after gave a treatment by using Conventional method. It can be seen in table below:

Table 15. The Comparison Score of Students'

\section*{Vocabulary Mastery in Pre-test and Post-test} (Control Class)
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|c|}{ Students' Vocabulary Msatery in Pre-test } \\
\hline No & Interval & Mid Point & Frequency & Percentages \\
& & & & \\
\hline 1 & \(40-47\) & 43.5 & 2 & \(9 \%\) \\
\hline 2 & \(48-55\) & 51.5 & 4 & \(18 \%\) \\
\hline 3 & \(56-63\) & 59.5 & 6 & \(27 \%\) \\
\hline 4 & \(64-71\) & 67.5 & 5 & \(23 \%\) \\
\hline 5 & \(72-79\) & 75.5 & 3 & \(14 \%\) \\
\hline 6 & \(80-87\) & 83.5 & 2 & \(9 \%\) \\
\hline \multicolumn{5}{|c|}{} \\
\hline Students' Vocabulary Mastery in Post-test \\
\hline No & Interval & Mid Point & Frequency & Percentages \\
\hline 1 & \(50-55\) & 52.5 & 2 & \(9 . \%\) \\
\hline 2 & \(56-61\) & 58.5 & 4 & \(18 \%\) \\
\hline 3 & \(62-67\) & 64.5 & 5 & \(23 \%\) \\
\hline 4 & \(68-73\) & 70.5 & 6 & \(27 \%\) \\
\hline 5 & \(74-79\) & 76.5 & 3 & \(14 \%\) \\
\hline 6 & \(80-85\) & 82.5 & 2 & \(9 \%\) \\
\hline
\end{tabular}

Based on the table above, it can be shown that the students score is there in class interval between pre-test and pot-test (control class) was 8087 (2 students/9\%) and the lowest interval score was 40-47 (2 students/9\%), meanwhile the highest interval score in post-test was 80-85(2 students/9\%), and the lowest score was 50-55(12student/9\%).

Based on the table above, it could be seen the histogram on the following figure:


Based on the figure above, the frequency of students' score of contol class from 40 up to 47 ( 2 students/9\%) in pre test, and 50 up to 55 (2 student/2\%) in post-test; 48 up to 55 (4 students/18\%) in pre-test, and 56 up to 61 ( 4 students/18\%) in post-test; 56 up to 63 ( 6 students/27\%) in pretest, and 62 up to 67 ( 5 students/23\%) in post-test; 64 up to 71 (5students/23\%) in pre-test, and 60 up to 73 ( 6 students/27\%) in post-test; 72 up to 79 ( 3 students/ \(14 \%\) ) in pre-test, and 74 up to 79 (3 students/14\%) in post-test, 80 up to 87 ( 2 students/9\%) in pre-test, and 80 up to 85 (2 students/9\%) in post-test

Next, the interval which had highest frequency in pre test was 56-63 (6 students/27\%) and the interval which had lowest frequency was 40-47 ND 80-87 (2 students/9\%). In post test of contol class, the interval which had highest frequency was 60-73 ( 6 students/27\%) and the interval which had lowest frequency was 50-55 and 80-85 (2 student 9\%).

\section*{3. The Comparison Data between Pre-test and Post-test by using Teams Games Tournaments Method}

The comparison the data between pre-test and post-test by using teams games tournaments method. While the researcher done the research in pre-test, the researcher did not apply treatment to experimental, but in the post test to experimental the researcher gave the treatment.

Based on the description data in pre-test of experimental and control class, there was comparison score between pre-test experimental class before and after gave a treatment by using Teams Games Tournaments Method. It can be seen the table below:

Table 16. The Comparison Score of Students' Vocabulary Mastery in Pre-test and Post-test
(Experimental Class)
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{5}{|c|}{ Students' Vocabulary Mastery in Pre-test } \\
\hline No & Interval & Mid Point & F & Percentages \\
\hline 1 & \(34-43\) & 38.5 & 2 & \(9 \%\) \\
\hline 2 & \(44-45\) & 48.5 & 4 & \(18 \%\) \\
\hline 3 & \(54-63\) & 58.5 & 9 & \(41 \%\) \\
\hline 4 & \(64-73\) & 68.5 & 5 & \(23 \%\) \\
\hline 5 & \(74-83\) & 78.5 & 0 & \(0 \%\) \\
\hline 6 & \(84-93\) & 88.5 & 2 & \(9 \%\) \\
\hline \multicolumn{5}{|c|}{ Students’ Vocabulary Mastery in Post-test } \\
\hline No & Interval & Mid Point & Frequency & Percentages \\
\hline 1 & \(60-65\) & 62.5 & 2 & \(9 . \%\) \\
\hline 2 & \(66-71\) & 68.5 & 4 & \(19 \%\) \\
\hline 3 & \(72-77\) & 74.5 & 5 & \(23 \%\) \\
\hline 4 & \(78-83\) & 80.5 & 7 & \(32 \%\) \\
\hline 5 & \(84-89\) & 86.5 & 2 & \(9 \%\) \\
\hline 6 & \(90-95\) & 92.5 & 1 & \(6 \%\) \\
\hline
\end{tabular}

Based on the table, it can be shown that the students score is there in class interval between that the highest interval score in pre-test experimental class was 84-93 (2students/9\%) and the lowest interval score was 34-43 (2 students/9\%), meanwhile the highest interval score in post-test was 90-95 (1 students/6\%) and the lowest score was 60-65 (2 students/10\%).

Based on the table, it could be seen the histogram on the following figure:


Figure 7. Histogram the Comparison Data of Voabulary Mastery in Pre-test and Post-test (Experimental Class)

Based on the histogram above, the frequency of students' score of experimental class from 34 up to 43 ( 2 students/9\%) in pre-test, and 60 up to 65 ( 2 student/10\%) in post-test; 44 up to 53 (4 students/18\%) in pre-test, and 66 up to 71 (4 students/19\%) in post-test; 54 up to 63 (9students/41\%) in pre-test, and 72 up to 77 ( 5 students/ \(23 \%\) ) in post-test; 64 up to 73 (5
students/23\%) in pre-test, and 78 up to 83 (7 students/32\%) in post-test; 74 up to 83 ( 0 students/0\%) in pre-test, and 84 up to 89 (2 students/10\%) in post-test. 84 up to 93 ( 2 students/9\%) in pre-test, and 90 up to 95 (1 students/6\%) in post-test.

Then, the interval which had highest frequency in pre test was 5463 (9 students/41\%) and the interval which had lowest frequency was 3443 and 84-93 (2 students/9\%). In post test of experimental class, the interval which had highest frequency was 78-83 (7 students/32\%) and the interval which had lowest frequency was \(90-95\) (31students/6\%).

\section*{4. The Comparison Data between Post - test of Control Class by Conventional Method and Exprimental Class after Using Teams Games Tournaments Method}

After the researcher gave pre-test to both of classes, before researcher giving a treatment to (VII 10 as control class and VII 8 as experimental class ), the researcher knew the ability of students' on students vocabulary mastery In pre- test, the researcher did not apply treatment to experimental and control class, but in post test, the researcher giving a treatment in experimental class. In ontrol class by using Conventional Method and Experimental class by using Teams Games Tournaments Method. It can be seen in table below:

Table 17. The Comparison Score of Students' Vocabulary Mastery In Control Class and Experimental (Post-test)
\begin{tabular}{|c|c|c|c|c|}
\hline \multicolumn{4}{|c|}{ Students' Vocabulary Mastery in Post-test (Control Class) } \\
\hline No & Interval & Mid Point & Frequency & Percentages \\
\hline 1 & \(50-55\) & 52.5 & 2 & \(9 \%\) \\
\hline 2 & \(56-61\) & 58.5 & 4 & \(18 \%\) \\
\hline 3 & \(62-67\) & 64.5 & 5 & \(23 \%\) \\
\hline 4 & \(68-73\) & 70.5 & 6 & \(27 \%\) \\
\hline 5 & \(74-79\) & 76.5 & 3 & \(14 \%\) \\
\hline 6 & \(80-85\) & 82.5 & 2 & \(9 \%\) \\
\hline \multicolumn{5}{|c|}{ Students' Vocabulary Mastery in Post-test (Exprimental Class) } \\
\hline No & Interval & Mid Point & Frequency & Percentages \\
\hline 1 & \(60-65\) & 62.5 & 2 & \(9 \%\) \\
\hline 2 & \(66-71\) & 68.5 & 4 & \(18 \%\) \\
\hline 3 & \(72-77\) & 74.5 & 5 & \(23 \%\) \\
\hline 4 & \(78-83\) & 80.5 & 7 & \(32 \%\) \\
\hline 5 & \(84-89\) & 86.5 & 2 & \(9 \%\) \\
\hline 6 & \(90-95\) & 92.5 & 1 & \(6 \%\) \\
\hline
\end{tabular}

Based on the table above, it can be shown that the highest interval
score in post test of the control class was 80-85 (2 students/9\%), and the last the lowest interval score was \(50-55(2\) student/9\%), meanwhile experimental classwas 90-95 (1 students/6\%) and the lowest interval score was 60-65 (2 student/10\%).

Based on the table above, it could be seen the histogram on the following figure:


Figure 8. Histogram the Comparison Data of Students' Vocabulary Mastery in Experimental and Control Class (Post-test)
Based on the figure, it can be shown the frequency of students' score in post test from 50 up to 55 ( 2 student/9\%) for control class and 60 up to 65 ( 2 students/10\%) for experimental class; 56 up to 61 (4 students \(/ 18 \%\) ) for control class and 65 up to 71 (4 students/19\%) for experimental class; 62 up to 67 ( 5 students \(/ 23 \%\) ) for control class and 72 up to 77 (5 students/23\%) for experimental class; 68 up to 73 (6 students/27\%) for control class and 78 up to 83 (7 students/32\%) for
experimental clas; 74 up to 79 ( 3 students/14\%) for control class and 84 up to 89 ( 2 students \(/ 10 \%\) ) for experimental class; and the last is 80 up to 85 (2 students/9\%) for control class and 90 up to 95 (1 students/6\%) for experimental class.

Next, the interval which had highest frequency in post test of of contol class, the interval which had highest frequency was 68-73 (6 students/27\%) and the interval which had lowest frequency was 50-55 and 80-85 (2 student/9\%). In experimental class was 78-83(7 students \(/ 32 \%\) ) and the interval which had lowest frequency was 90-95 (1 students/6\%). In post test.

Based on the description of comparison from the data, it can be shown that the students' scores of experimental class by using Teams Games Tournaments Method was higher than the students' score of control class by using Conventional method.

\section*{C. Data Analysis}

\section*{1. Requirment test}
a. Normality and Homogeneity of Experimental and Control Class in Pre-Test

Table 18
Normality and Homogenity in Pre-Test
\begin{tabular}{|l|l|l|l|l|}
\hline \multirow{2}{*}{ Class } & \multicolumn{3}{|l|}{\begin{tabular}{l} 
Normality \\
Test
\end{tabular}} & \multicolumn{2}{l|}{\begin{tabular}{l} 
Homogeneity \\
Test
\end{tabular}} \\
\cline { 2 - 4 } & \(\mathrm{t}_{\text {count }}\) & \(\mathrm{t}_{\text {table }}\) & \(\mathrm{F}_{\text {count }}\) & \(\mathrm{F}_{\text {table }}\) \\
\hline Experimental Class & 1.62 & 11.070 & & \multirow{2}{*}{\(1.02<2.02\)} \\
\hline Control Class & 2.15 & 11.070 & \\
\hline
\end{tabular}

Based on the table above researcher calculation, the score of experiment class \(\mathrm{Tc}=1.62<\mathrm{Tt}=10.070\) with \(\mathrm{n}=22\) and control class \(\mathrm{Tc}=2.15<\mathrm{Tt}=10.070\) with \(\mathrm{n}=22\), and real level \(\{\) EMBED Equation. 3 \}0.05. Because \(\mathrm{Tc}<\mathrm{Tt}\) in the both class, it means \(\mathrm{H}_{\mathrm{a}}\) was accepted. It meant that experiment class and control class were distributed normal. The calculation can be seen in appendix 15 and appendix 16.
b. Normality and Homogeneity of Experimental and Control Class in Post-Test

Table 19
Normality and Homogeneity in Post-Test
\begin{tabular}{|l|l|l|l|l|}
\hline \multirow{2}{*}{ Class } & \multicolumn{3}{|l|}{\begin{tabular}{l} 
Normality \\
Test
\end{tabular}} & \multicolumn{2}{l|}{\begin{tabular}{l} 
Homogeneity \\
Test
\end{tabular}} \\
\cline { 2 - 4 } & \(\mathrm{t}_{\text {count }}\) & \(\mathrm{t}_{\text {table }}\) & \(\mathrm{F}_{\text {count }}\) & \(\mathrm{F}_{\text {table }}\) \\
\hline Experimental Class & 5.77 & 10.070 & \multirow{2}{*}{\(1.01<2.02\)} \\
\hline Control Class & 4.71 & 10.070 & \\
\hline
\end{tabular}

The previous table shows that the score of experimental class \(\mathrm{Tc}=5.77<\mathrm{Tt}=10.070\) with \(\mathrm{n}=22\) and control class Tc \(=4.71<\mathrm{Tt}=10.070\) with \(\mathrm{n}=22\), and real level \(\{\) EMBED Equation. 3\(\}^{0.05}\). Because \(\mathrm{Tc}<\mathrm{Tt}\) in the both class, it means \(\mathrm{H}_{\mathrm{a}}\) was accepted. It meant that experiment class and control class were distributed normal. The calculation can be seen in appendix 17 and 18.

The coefficient of \(\mathrm{F}_{\text {count }}=1.01\) was compared with F table. Where F table was determined at real \{ EMBED Equation. 3\(\}=0.05\), and the different numerator \(\mathrm{dk}=\mathrm{N}-1=22-1\) \(=21\) and denominator \(\mathrm{dk} \mathrm{N}-1=22-1=21\). So, by using the list of critical value at F distribution is got \(\mathrm{F}_{\mathbf{0 . 0 5}}=2.02\) It showed that \(\mathrm{F}_{\text {count }} 1.01<\mathrm{F}_{\text {table }} 2.02\). So, the researcher concluded that the variant from the data of the students' vocabulary mastery at SMP N 5 Padangsidimpuan in experimental and control class was homogenous. The calculation can be seen on the appendix 20.

\section*{2. Hypothesis Test}

After calculating the data of post-test, researcher has found that post-test result of experimental and control class is normal and homogenous. The data would be analyzed to prove the hypothesis. It used formula of t -test. Hypothesis of the research was "Teams Games Tournaments Method has significant effect toward vocabulary mastery at grade VII students of SMP N 5 Padangsidimpuan". The calculation can be seen on the appendix 21 and 22 . The result of \(t\)-test was as follow:

Table 20
Result of T-test from the Both Averages
\begin{tabular}{|l|l|l|l|}
\hline \multicolumn{4}{|l|}{ Pre-test } \\
\hline \(\mathrm{t}_{\text {count }}\) & \(\mathrm{t}_{\text {table }}\) & \(\mathrm{t}_{\text {count }}\) & \(\mathrm{t}_{\text {table }}\) \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|}
\hline 0.482 & 2.021 & 4.549 & 2.021 \\
\hline
\end{tabular}

The test hypothesis have two criteria. First, if \(\mathrm{t}_{\text {count }}<\mathrm{t}_{\text {table }}, \mathrm{H}_{0}\) is accepted. Second, \(t_{\text {count }}>t_{\text {table }}, H_{a}\) is accepted. Based on researcher calculation in pre test, researcher found that \(t_{\text {count }} 0.482\) while \(t_{\text {table }} 2.021\) with opportunity \((1-\alpha)=1-5 \%=95 \%\) and \(d k=n_{1}+n_{2}-2=22+\) \(22-2=42\). Cause \(\mathrm{t}_{\text {count }}<\mathrm{t}_{\text {table }}(0.482<2.021)\), it means that hypothesis \(\mathrm{H}_{\mathrm{a}}\) was rejected and \(\mathrm{H}_{0}\) was accepted.

So, in pre test, the two classes were same. There is no difference in the both classes. But, in post test, researcher found that \(\mathrm{t}_{\text {count }} 4.549\) while \(\mathrm{t}_{\text {table }} 2.021\) with opportunity \((1-\alpha)=1-5 \%=95 \%\) and \(\mathrm{dk}=\mathrm{n}_{1}+\mathrm{n}_{2}-2=22+22-2=42\). Cause \(\mathrm{t}_{\text {count }}>\mathrm{t}_{\text {table }}(4.549\) >2.021), it means that hypothesis \(\mathrm{H}_{\mathrm{a}}\) was accepted and \(\mathrm{H}_{0}\) was rejected. So, there was the significant effect of Teams Games Tournamenst Method on Students' Vocabulary Mastery at the seventh grade students of SMP N 5 Padangsidimpuan. In this case, the mean score of experimental class by using Teams Games Tournamenst Method was 84.59 and mean score of control class was 73.74 that was taught by using conventional method. The calculation can be seen on the appendix 21 and 22.

\section*{D. Discussion}

Based on the related findings, the researcher discussed the result of this research and compared with the related findings. It also discussed with the theory that has been stated by the researcher. First, Nuria Siregar \({ }^{1}\) showed that the experimental group got 80.7. Second, Komang Satya Permana \({ }^{2}\) showed that the experimental group got 76.21 for the mean score of pre-test. Nuria siregar's pre-test result was higher than Komang Satya Permana's result. The last, Rahma Deni \({ }^{3}\) showed that the experimental group got 43.78 .for the mean score of pre-test. Komang Satya Permana's pre-test result was higher than Rahma Deni. Then, Nuria Siregari's pre-test result was higher than Komang Satya Permana.

Meanwhile, the researcher got the mean score of pre-test of the experimental group was 58.05 and it was the lowest pre-test result than Nuria Siregar's and Komang Satya Permana's result but higest pre-test result than Rahma Deni's and result of the related findings. From the above description, it can be seen that the highest mean score of pre-test of the experimental group was gotten by the researcher where the mean score of pre-test was 80.7 and the lowest mean score of pre-test of the

\footnotetext{
\({ }^{1}\) Nuria Siregar, The effect of Cooperative Learning Teams-Games Tournnaments (TGT) to students speaking ability at grade X MAS PPDM Basilam Baru Kota Pinang, 2006-2007 Academic Year, (STAIN: Padangsidimpuan), p. 55.
\({ }^{2}\) Komang, The Effect of using Cooperative Learning Teams Games Tournament on The Vocabulary Achievment of the eight year students of SMP Laboratorium Singaraja in Academic Year 2012/2013. Retrieved on march \(10^{\text {th }}\) march 2017 at 9.10 pm .
\({ }^{3}\) Rahma Deni, Rahma Deni, the effect of teams games tournament (TGT) types on students' reading descriptive.
}
experimental group was gotten by Rahma Deni's in her thesis where the mean score of pre-test was 43.78. It means, before using Teams Games Tournaments Method, students' score was low and for the researcher, the mean score of pre-test of the experimental group was under the standardization where the standardization mark is 75 .

Then, for the post-test result,Nuria Siregar \({ }^{4}\) got the experimental class' score was 82.19 . Komang Satya Permana's \({ }^{5}\) got the experimental class' score was 78 , and it was lower than Nuria's result. Rahma Deni \({ }^{6}\) got the experimental class' score was 77.68 , and it lower than Nuria's and Komang's result. Beside, the researcher got the mean score for experimental class after using concept circle strategy was 84.59 and it was the highest score among the related findings.

From the description, it can be seen that the highest mean score of post-test of the experimental group was gotten by the researcher where the mean score of post-test was 84.59 and the lowest mean score of posttest was gotten by Nuria in her thesis where the mean score of post-test was 82.19. So, among the mean scores of post-test, the mean scores have increased than pre-test. Where, for the researcher result, the mean score of post-test was passed the standardization where the standardization mark is 75 .

\footnotetext{
\({ }^{4}\) Nuria Siregar, Op.Cit.
\({ }^{5}\) Komang,Op.Cit.
\({ }^{6}\) Rahma Deni, Op.Cit.
}

Based on the result, the researcher has got the signific ant effect of Teams Games Tournamenst Method, so have the researchers who mentioned in related finding. Nuria Siregar \({ }^{7}\) found that \(t_{0}\) was higher than \(t_{t}(2.83>2.04)\), Komang \(^{8}\) found that \(t_{0}\) was higher than \(t_{t}(2.41>1.92)\), Rahma Deni \({ }^{9}\) found that \(t_{0}\) was higher than \(t_{t}\) (2.47> 1.67), From the description, t-test result from Rahma Deni was the highest between Nuria's and Komang's result and t-test result from Komang was lowest among them.

Beside, the researcher also found that \(t_{0}\) is higher than \(t_{t}\) where \(t_{0}\) was 4.549 and \(t_{t}\) was \(2.021(4.549>2.021)\). Where, the researcher result of t-test was the highest among the related findings result. So, the result of t-test of Teams Games Tournaments Method highest than the result t test of related findings. It can be seen that among the researches, the using of Teams Games Tournaments Method gave the effect to students’ vocabulary mastery especially at the seventh grade students of SMP N 5 Padangsidimpuan where it is suitable with the theory from Janet Allen states that, Teams Games Tournaments Method can enrich students'

\footnotetext{
\({ }^{7}\) Nuria Siregar, The effect of Cooperative Learning Teams-Games Tournnaments (TGT) to students speaking ability at grade X MAS PPDM Basilam Baru Kota Pinang, 2006-2007 Academic Year, (STAIN: Padangsidimpuan),
\({ }^{8}\) Komang Satya Permana, The Effect of using Cooperative Learning Teams Games Tournament on The Vocabulary Achievment of the eight year students of SMP Laboratorium Singaraja in Academic Year 2012/2013.
\({ }^{9}\) Rahma Deni, The Effect of TGT on Students'Vocabulary ...
}
vocabulary \({ }^{10}\) Besides that, the students could active in their class, so that students easy in remembering what students werelearned. This proofs show that concept circle is suitable to be applied in teaching Vocabulary because it has been proven by the previous researchesand the theory. So, Teams Games Tournaments Method has given the significant effect to the research that has been done by the researcher or the other researcher who mentioned in related finding.

From the result of the research that is previously stated, it was proved that the students of the experimental group who were taught vocabulary mastery by using Teams Games Tournamenst Method got better result than the control group that were taught vocabulary mastery by using conventional method.

\section*{E. Threats of the Research}

The researcher found the threats of this research as follows:
1. The students needed more time for answering the test.
2. There were some students that were noisy while teaching and learning process. So, it can disturb the concentration of the others.

\footnotetext{
\({ }^{10}\) Allen, Janet, Word, Word, Word, Teaching Vocabulary in Grades 4-12( Portlandmaine: Sthenhouse, 1999), p. 101.
}
3. There were some students that were lac k of serious to answer the test in pre test and post test. It can be the threat of the research. So, the researcher can not reach the validity of trustworthiness data.

\section*{CHAPTER V}

\section*{CONCLUSION AND SUGGESTION}

\section*{A. Conclusion}

Based on the result of the research, the conclusions of this research are:
1. Before using Teams Games Tournnaments Method, students' vocabulary mastery was still low. it can be seen by highest score of experimental class in pre test was 84 only and lowest score was 34 . While the highest score of control class was 80 and the lowest score was 40 . Besides, the mean score of experimental class with using conventional strategy was 58.05 and the control class with using conventional strategy was 62.14 , it is on the level low.
2. After using Teams Games Tournaments Method, researcher got the highest score of experimental class became 90 and the lowest score 60 and the mean score of experimental class was higher than control class ( \(80>90\) ). it means that by using using Teams Games Tournaments Method, students' vocabulary mastery was higher.
3. Based on the calculation of \(\mathrm{t}_{\text {count }}\) was 1.62 was higher than \(\mathrm{t}_{\text {table }} 11.070\) and the mean score of experimental class in post test was 84.59 , meanwhile the mean score of control class in post test was 73.74 , it was higher than control class (84.59>73.74), it can be conclude that there was the significant effect of using Teams Games Tournaments Method on

Students' Vocabulary Mastery at the seventh Grade students of SMP N 5
Padangsidimpuan where \(\mathrm{H}_{\mathrm{a}}\) was accepted and \(\mathrm{H}_{0}\) was rejected.

\section*{B. Suggestion}

Based on the above conclusion, the researcher has some suggestion as follow:
1. For headmaster, provides strategy in teaching vocabulary mastery. That students' increase to learning English with method.
2. For the English teacher of SMP N 5 Padangsidimpuan. It is very wise to apply the innovative approach such as using Teams Games Tournaments Method on vocabulary mastery.
3. For the research, it is hoped to use using Teams Games Tournaments Method, because it can make them to be able to communicate or communicated competence.

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\section*{CURRICULUM VITAE}

\section*{A. Identity}
\begin{tabular}{ll} 
Name & \(:\) ANNISA HULHUSNA SIREGAR \\
Nim & \(: 133400005\) \\
Place and Birthday & \(:\) Hutabaru, \(05^{\text {th }}\) September 1995 \\
Sex & : Female \\
Religion & \(:\) Moslem \\
Address & : Parandolok Mardomu, Kec. Sipirok, Kab. Tapanuli \\
& Selatan
\end{tabular}

\section*{B. Parent}
1. Father's name : Asliman Siregar (Alm)
2. Mother's name : Juliana Naini Hasibuan
Educational Background
1. Elementary School : SDS No. 104560 Muhammadiyah Parsorminan
(2007)
2. Junior High School : SMPN 4 Baringin (2010)
3. Senior High School : SMAN 1 Sipirok (2013)
4. Institute : IAIN Padangsidimpuan (2018)

\section*{KEMENTERIAN AGAMA INSTITUT AGAMA ISLAM NEGERI PADANGSIDIMPUAN FAKULTAS TARBIYAH DAN ILMU KEGURUAN \\ Jalan T. Rizal Nurdin Km. 4,5 Sihitang 22733, \\ Telp (0634) 22080 Fax (0634) 24022}
\begin{tabular}{llll} 
Nomor & \(: 31 / \mathrm{ln} .14 / \mathrm{E} .6 \mathrm{a} /\) PP.00.9/09/2016 & Padangsidimpuan, 7 September 2016 \\
Sifat & Biasa \\
Lamp & \(\vdots\) \\
Perihal & Pengesahan Judul dan Pembimbing Skripsi
\end{tabular}

Kepada Yth:
Bapak/Ibu:
1. Dr. Fitriadi Lubis, M.Pd
2. Sojuangon Rambe, S.S., M.Pd

Di-
Padangsidimpuan
Assalamu 'Alaikum Wr. Wb
Dengan hormat, Disampaikan kepada Bapak/Ibu bahwa berdasarkan hasil Sidang Tim Pengkaji Kelayakan Judul Skripsi, telah ditetapkan Judul Skripsi Mahasiswa tersebut dibawah ini sebagai berikut:
\begin{tabular}{ll} 
Nama & : Annisa Hulhusna Siregar \\
Nim & :13340 0005 \\
Fak/Jurusan & : FTIK / Tadris Bahasa Inggris 1 \\
Judul Skripsi & :The Effect of Using Team Games Tournament (TGT) \\
& Method on Students Vocabulary Mastery At The Eleventh \\
& Grade Students of SMA N 7 Padangsidimpuan
\end{tabular}

Seiring dengan hal tersebut, kami akan mengharapkan kesediaan Bapak/Ibu menjadi pembimbing I dan Pembimbing II penelitian penulisan skripsi yang dimaksud.

Demikian kami sampaikan, atas kesediaan dan kerjasama yang baik dari Bapak/lbu, kami ucapkan terimakasih.

Ketua Jurusan Tadris Bahasa Inggris


Rayendritni Fahmei Lubis, M.Ag NIP. 197105102000032001

Sekretaris Jurusan Tadris Bahasa Inggris


Wakil Dekan Bidang Akademik


Dr. Lelya Hilda, M. Si NIP. 197209202000032002

PERNVATAAN KESEDIAAN SEBAGAI PEMBIMBING

BERSEDIA/TIDAK BERSEDIA PEMBIMBINGI

BERSEDIA/TIDAK BERSEDIA
PEMBIMBING II

Nomor: B- 308 /n. 14/E.4c/TL. 00/05/2018
Hal : Izin Penelitian
Penyelesaian Skripsi.

Yth. Kepala SMP N. 5 Padangsidimpuan
Kota Padangsidimpuan

Dengan hormat, Dekan Fakultas Tarbiyah dan limu Keguruan Institut Agama Islam Negeri Padangsidimpuan menerangkan bahwa :
\begin{tabular}{ll} 
Nama & : Annisa Hulhusna Siregar \\
NIM & : 133400005 \\
Fakultas/Jurusan & : Tarbiyah dan IImu Keguruan/TBI \\
Alamat & : Sipirok
\end{tabular}
adalah benar Mahasiswa IAIN Padangsidimpuan yang sedang menyelesaikan Skripsi dengan Judul "The Effect of Using Teams Games Tournamets Method on Students' Vocabulary Mastery at TheSventh Grade Studens of SMP N. 5 Padangsidimpuan". Sehubungan dengan itu, kami mohon bantuan Bapak/lbu untuk memberikan data dan informasi sesuai dengan maksud judul diatas.
Demikian disampaikan, atas kerja sama yang baik diucapkan terim. ikasih.



\section*{Appendix I}

\section*{Experiment Class}

\section*{RENCANA PELAKSANAAN PEMBELAJARAN}
(RPP)
\begin{tabular}{ll} 
Nama sekolah & \(:\) SMP Negeri 5 Padangsidimpuan \\
Mata Pelajaran & \(:\) Bahasa Inggris \\
Kelas/Semester & \(:\) VII/ I (Ganjil) \\
Tema & \(:\) Vegetables \\
Alokasi Waktu & \(: 2 \times 45\) menit (1 Pertemuan) \\
Standar Kompetensi
\end{tabular}
- Siswa mampu memahami makna dan arti kosakata yang berkaitan dengan lingkungan sekitar.

\section*{Kompetensi Dasar :}
- Mengungkapkan makna dari kosakata secara akurat, lancar dan berterima dalam konteks kehidupan sehari-hari.

\section*{Indikator :}
- Mengidentifikasi, menyebutkan, menuliskan (Vegetables) yang diberikan oleh guru.

Tujuan pembelajaran :
- Siswa dapat mengidentifikasi, menyebutkan, menuliskan (Vegetables) yang diberikan oleh guru.

Metode Pembelajaran : Teams Games Tournament (TGT)
Materi Pembelajaran : Vegetables

\section*{Langkah-langkah pembelajaran :}

\section*{a. Kegiatan Pendahuluan}
1. Merespon salam dan tegur sapa yang disampaikan oleh guru.
2. Merespon pemeriksaan kehadiran yang dilakukan oleh guru.
3. Menyimak penjelasan guru tentang tujuan pembelajaran yaitu tentang (Vegetables)

\section*{b. Kegiatan Inti}

Eksplorasi : Menjelaskan kepada peserta didik tentang TGT secara singkat.

Elaborasi : Memfasilitasi peserta didik melalui pemberian tugas, diskusi dan lain-lain.

Prosedur Teams Games Tournamennt (TGT) Method:
\begin{tabular}{|c|c|c|c|}
\hline Procedure & Teacher & Step & Student \\
\hline \multirow{4}{*}{\[
\begin{gathered}
\text { W } \\
\mathbf{H} \\
\mathbf{I} \\
\mathbf{L} \\
\mathbf{E}
\end{gathered}
\]} & \begin{tabular}{lr} 
The & teacher \\
presesnt & the \\
material & aboute \\
vocabulary & that \\
topic & is \\
Vegetables
\end{tabular} & 1. Teach & Students listening carefully aboute teacher presentation. \\
\hline & Teacher divided class into small group of five to six members learning students. & & Students make a gourp base on the teacher instruction and they join with their group. \\
\hline & The teacher gives the worksheet to their teams to master the material. & 2. TeamStudy & Students work on worksheet in their teams to master the material. \\
\hline & The teacher apply the game in the end of lesson. & 3. Tournament & The students play game academic \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|}
\hline & & & \\
T & The teacher & & The students \\
E & publish the best & & who get the \\
A & group that get the & & best score will \\
C & best score. Then, & 4. Team- & get the \\
\(\mathbf{H}\) & teacher gives the & Recognition & sertificate and \\
\(\mathbf{I}\) & sertificate with & & reward. \\
\(\mathbf{N}\) & the set criteria. & & \\
\(\mathbf{G}\) & & \\
\hline
\end{tabular}

Konfirmasi : Guru berfungsi sebagai narasumber dan fasilitator dalam menjawab pertanyaan peserta didik yang menghadapi kesulitan.

\section*{c. Kegiatan Penutup}
1. Menyimak komentar dan arahan guru untuk pertemuan berikutnya.
2. Merespon salam penutup yang disampaikan oleh guru.

\section*{Media dan sumber pembelajaran :}
a. Media Pembelajaran :
- Boardmarker
- Whiteboard
- Power point
- Students worksheet
b. Sumber pembelajaran
- Buku bahasa inggris siswa SMP
- Kamus bahasa inggris
- Internet

Penilaian :
\begin{tabular}{|l|c|c|c|}
\hline \multicolumn{2}{|c|}{\begin{tabular}{c} 
Indikator pencapaian \\
kompetensi
\end{tabular}} & \begin{tabular}{c} 
Teknik \\
penilaian
\end{tabular} & \begin{tabular}{c} 
Bentuk \\
instrument
\end{tabular} \\
\hline \begin{tabular}{l} 
Instrument soal \\
1. \\
Mengidentifikasi arti \\
dari nama-nama \\
sayuran.
\end{tabular} & & Multiple & Memilih \\
2. \begin{tabular}{l} 
Mengidentifikasi \\
penggunaan nama- \\
nama sayuran.
\end{tabular} & Tes tulisan & & \begin{tabular}{c} 
jawaban yang \\
sesuai dengan \\
petunjuk soal
\end{tabular} \\
\hline
\end{tabular}

Jumlah soal keseluruhan adalah 50.
Jumlah skor maksimal keseluruhan adalah 100.
Setiap jawaban yang benar diberi skor 2.
Jumlah skor keseluruhan \(2 \times 50=100\).
\[
\text { Padangsidimpuan, } 2017
\]

Validator Internal
Validator Eksternal

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\section*{Researcher}

\section*{Annisa Hulhusna Siregar}

NIM : 133400005

\section*{Appendix II}

\section*{Experiment Class}

\section*{RENCANA PELAKSANAAN PEMBELAJARAN}
(RPP)
\begin{tabular}{ll} 
Nama sekolah & : SMP Negeri 5 Padangsidimpuan \\
Mata Pelajaran & \(:\) Bahasa Inggris \\
Kelas/Semester & \(:\) VII/ I (Ganjil) \\
Tema & \(:\) Members of Family \\
Alokasi Waktu & \(: 2 \times 45\) menit (1 Pertemuan) \\
Standar Kompetensi
\end{tabular}
- Siswa mampu memahami makna dan arti kosakata yang berkaitan dengan lingkungan sekitar.

\section*{Kompetensi Dasar :}
- Mengungkapkan makna dari kosakata secara akurat, lancar dan berterima dalam konteks kehidupan sehari-hari.

\section*{Indikator}
:
- Mengidentifikasi, menyebutkan, menuliskan (members of family) yang diberikan oleh guru.

\section*{Tujuan pembelajaran :}
- Siswa dapat mengidentifikasi, menyebutkan, menuliskan (members of family) yang diberikan oleh guru.

\section*{Metode Pembelajaran : Teams Games Tournament (TGT)}

Materi Pembelajaran : Members of Family

\section*{Langkah-langkah pembelajaran :}

\section*{d. Kegiatan Pendahuluan}
4. Merespon salam dan tegur sapa yang disampaikan oleh guru.
5. Merespon pemeriksaan kehadiran yang dilakukan oleh guru.
6. Menyimak penjelasan guru tentang tujuan pembelajaran yaitu tentang (Members of Family)

\section*{e. Kegiatan Inti}

Eksplorasi : Menjelaskan kepada peserta didik tentang TGT secara singkat.

Elaborasi : Memfasilitasi peserta didik melalui pemberian tugas, diskusi dan lain-lain.

Prosedur Teams Games Tournamennt (TGT) Method:
\begin{tabular}{|c|c|c|c|}
\hline Procedure & Teacher & Step & Student \\
\hline \multirow{4}{*}{\[
\begin{gathered}
\text { W } \\
\mathbf{H} \\
\mathbf{I} \\
\mathbf{L} \\
\mathbf{E}
\end{gathered}
\]} & \begin{tabular}{lr} 
The \(r\) \\
presesnt & teacher \\
material & aboute \\
vocabulary that \\
topic is Members \\
of Family
\end{tabular} & 5. Teach & Students listening carefully aboute teacher presentation. \\
\hline & Teacher divided class into small group of five to six members learning students. & & Students make a gourp base on the teacher instruction and they join with their group. \\
\hline & The teacher gives the worksheet to their teams to master the material. & 6. TeamStudy & Students work on worksheet in their teams to master the material. \\
\hline & The teacher apply the game in the end of lesson. & 7. Tournament & The students play game academic \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|}
\hline & & & \\
T & The teacher & & The students \\
E & publish the best & & who get the \\
A & group that get the & & best score will \\
C & best score. Then, & 8. Team- & get the \\
\(\mathbf{H}\) & teacher gives the & Recognition & sertificate and \\
\(\mathbf{I}\) & sertificate with & & reward. \\
\(\mathbf{N}\) & the set criteria. & & \\
\(\mathbf{G}\) & & \\
\hline
\end{tabular}

Konfirmasi : Guru berfungsi sebagai narasumber dan fasilitator dalam menjawab pertanyaan peserta didik yang menghadapi kesulitan.

\section*{f. Kegiatan Penutup}
1. Menyimak komentar dan arahan guru untuk pertemuan berikutnya.
2. Merespon salam penutup yang disampaikan oleh guru.

\section*{Media dan sumber pembelajaran :}
c. Media Pembelajaran :
- Boardmarker
- Whiteboard
- Power point
- Students worksheet
d. Sumber pembelajaran
- Buku bahasa inggris siswa SMP
- Kamus bahasa inggris
- Internet

Penilaian :
\begin{tabular}{|l|c|c|c|}
\hline \multicolumn{2}{|c|}{\begin{tabular}{c} 
Indikator pencapaian \\
kompetensi
\end{tabular}} & \begin{tabular}{c} 
Teknik \\
penilaian
\end{tabular} & \begin{tabular}{c} 
Bentuk \\
instrument
\end{tabular} \\
\hline Instrument soal \\
\hline \begin{tabular}{l} 
3. \begin{tabular}{l} 
Mengidentifikasi arti \\
dari nama-nama \\
anggota keluarga.
\end{tabular} \\
4. \\
\begin{tabular}{l} 
Mengidentifikasi nama- \\
penggunaan Tes tulisan \\
nama anggota keluarga.
\end{tabular} \\
\hline
\end{tabular} Multiple & Memilih \\
choice & \begin{tabular}{c} 
jawaban yang \\
sesuai dengan \\
petunjuk soal
\end{tabular} \\
\hline
\end{tabular}

Jumlah soal keseluruhan adalah 50 .
Jumlah skor maksimal keseluruhan adalah 100 .
Setiap jawaban yang benar diberi skor 2.
Jumlah skor keseluruhan \(2 \times 50=100\).
\[
\text { Padangsidimpuan, } 2017
\]

Validator Internal
Validator Eksternal

Sojuangon Rambe, S.S., M.Pd
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\section*{Researcher}

\section*{Annisa Hulhusna Siregar}

\section*{Appendix III}

\section*{Control Class}

\section*{RENCANA PELAKSANAAN PEMBELAJARAN}
(RPP)
\begin{tabular}{ll} 
Nama sekolah & \(:\) SMP Negeri 5 Padangsidimpuan \\
Mata Pelajaran & \(:\) Bahasa Inggris \\
Kelas/Semester & \(:\) VII/ I (Ganjil) \\
Tema & \(:\) Vegetables. \\
Alokasi Waktu & \(: 2 \times 45\) menit (2 Pertemuan) \\
Standar Kompetensi
\end{tabular}
- Siswa mampu memahami makna dan arti kosakata yang berkaitan dengan lingkungan sekitar.

\section*{Kompetensi Dasar}
- Mengungkapkan makna dari kosakata secara akurat, lancar dan berterima dalam konteks kehidupan sehari-hari.

\section*{Indikator} :
- Mengidentifikasi, menyebutkan, menuliskan (Vegetables) yang diberikan oleh guru.

\section*{Tujuan pembelajaran :}
- Siswa dapat mengidentifikasi, menyebutkan, menuliskan (Vegetables) yang diberikan oleh guru.

\section*{Metode Pembelajaran : Conventional Method}

Materi Pembelajaran : (Vegetables).

\section*{Langkah-langkah pembelajaran :}
a. Kegiatan Pendahuluan :
1. Merespon salam dan tegur sapa yang disampaikan oleh guru.
2. Merespon pemeriksaan kehadiran yang dilakukan oleh guru.
3. Menyimak penjelasan guru tentang tujuan pembelajaran yaitu (Vegetables).

\section*{b. Kegiatan Inti}
1. Guru menjelaskan vocabulary yang akan dipelajari siswa.
2. Guru memberikan daftar vocabulary.
3. Guru meminta siswa untuk mencari arti dari vocabulary tersebut di dalam kamus.
4. Guru meminta siswa untuk menghapal vocabulary tersebut.
5. Guru memberikan latihan kepada siswa tentang vocabulary yang dipelajari

\section*{c. Kegiatan Penutup}
1. Guru membuat kesimpulan pelajaran.
2. Guru meminta siswa mengkahiri kelas dengan berdo'a.
3. Salam .

\section*{Media dan sumber pembelajaran :}
e. Media Pembelajaran :
- Boardmarker
- Whiteboard
- Students worksheet
f. Sumber pembelajaran :
- Buku bahasa inggris siswa SMP
- Kamus bahasa inggris
- Internet

Penilaian:
\begin{tabular}{|c|c|c|c|}
\hline Indikator pencapaian kompetensi & Teknik penilaian & Bentuk instrument & Instrument soal \\
\hline \begin{tabular}{l}
5. Mengidentifikasi arti dari nama-nama sayuran. \\
6. Mengidentifikasi penggunaan namanama sayuran.
\end{tabular} & Tes tulisan & Multiple choice & Memilih jawaban yang sesuai dengan petunjuk soal \\
\hline
\end{tabular}

Jumlah soal keseluruhan adalah 50 .

Jumlah skor maksimal keseluruhan adalah 100.

Setiap jawaban yang benar diberi skor 2.
Jumlah skor keseluruhan \(2 \times 50=100\).

\author{
Padangsidimpuan, 2018 \\ Validator, \\ Researcher,
}

\section*{Hapsyah Sri Mei Siregar, S.Pd NIP. 196705031991032005}

Annisa Hulhusna Siregar NIM : 133400005

\section*{Appendix IV}

\section*{Control Class}

\section*{RENCANA PELAKSANAAN PEMBELAJARAN}
(RPP)
\begin{tabular}{ll} 
Nama sekolah & \(:\) SMP Negeri 5 Padangsidimpuan \\
Mata Pelajaran & \(:\) Bahasa Inggris \\
Kelas/Semester & \(:\) VII/ I (Ganjil) \\
Tema & \(:\) Members of Family \\
Alokasi Waktu & \(: 2 \times 45\) menit (2 Pertemuan) \\
Standar Kompetensi
\end{tabular}
- Siswa mampu memahami makna dan arti kosakata yang berkaitan dengan lingkungan sekitar.

\section*{Kompetensi Dasar}
- Mengungkapkan makna dari kosakata secara akurat, lancar dan berterima dalam konteks kehidupan sehari-hari.

\section*{Indikator}
- Mengidentifikasi, menyebutkan, menuliskan (Members of Family) yang diberikan oleh guru.

\section*{Tujuan pembelajaran :}
- Siswa dapat mengidentifikasi, menyebutkan, menuliskan (Members of Family) yang diberikan oleh guru.

\author{
Metode Pembelajaran : Conventional Method
}

Materi Pembelajaran : (Members of Family).

\section*{Langkah-langkah pembelajaran :}
d. Kegiatan Pendahuluan :
1. Merespon salam dan tegur sapa yang disampaikan oleh guru.
2. Merespon pemeriksaan kehadiran yang dilakukan oleh guru.
3. Menyimak penjelasan guru tentang tujuan pembelajaran yaitu (Members of Family).

\section*{e. Kegiatan Inti}
6. Guru menjelaskan vocabulary yang akan dipelajari siswa.
7. Guru memberikan daftar vocabulary.
8. Guru meminta siswa untuk mencari arti dari vocabulary tersebut di dalam kamus.
9. Guru meminta siswa untuk menghapal vocabulary tersebut.
10. Guru memberikan latihan kepada siswa tentang vocabulary yang dipelajari

\section*{f. Kegiatan Penutup}
4. Guru membuat kesimpulan pelajaran.
5. Guru meminta siswa mengkahiri kelas dengan berdo'a.

\section*{6. Salam .}

\section*{Media dan sumber pembelajaran :}
g. Media Pembelajaran :
- Boardmarker
- Whiteboard
- Students worksheet
h. Sumber pembelajaran :
- Buku bahasa inggris siswa SMP
- Kamus bahasa inggris
- Internet

\section*{Penilaian:}
\begin{tabular}{|l|c|c|c|}
\hline \multicolumn{2}{|c|}{\begin{tabular}{c} 
Indikator pencapaian \\
kompetensi
\end{tabular}} & \begin{tabular}{c} 
Teknik \\
penilaian
\end{tabular} & \begin{tabular}{c} 
Bentuk \\
instrument
\end{tabular} \\
\hline \begin{tabular}{l} 
Instrument soal \\
7. \begin{tabular}{l} 
Mengidentifikasi arti \\
dari nama-nama \\
anggota keluarga.
\end{tabular} \\
\begin{tabular}{l} 
8. \\
Mengidentifikasi nama- \\
penggunaan Tes tulisan \\
nama anggota keluarga.
\end{tabular} \\
\end{tabular} choice & \begin{tabular}{c} 
Multiple \\
jawaban yang \\
sesuai dengan \\
petunjuk soal
\end{tabular} \\
\hline
\end{tabular}

Jumlah soal keseluruhan adalah 50.

Jumlah skor maksimal keseluruhan adalah 100.
Setiap jawaban yang benar diberi skor 2.
Jumlah skor keseluruhan \(2 \times 50=100\).

Hapsyah Sri Mei Siregar, S.Pd NIP. 196705031991032005

Annisa Hulhusna Siregar
NIM : 133400005

\section*{Appendix V}

LEARNING MATERIAL
A. Pertemuan Pertama

Topic : Vegetables

\begin{tabular}{|c|c|c|}
\hline No & Bahasa Inggris & Bahasa Indonesia \\
\hline 1 & Aubergine & Terong \\
\hline 2 & Bamboo shoots & Rebung \\
\hline 3 & Banana bud & Jantung pisang \\
\hline 4 & Bean & Buncis \\
\hline k5 & Beansprout & Taoge \\
\hline 6 & Brocoli & Brocoli \\
\hline 7 & Cabbage & Kol \\
\hline 8 & Carrot & Wortel \\
\hline 9 & Cassava leaf & Daun singkong \\
\hline 10 & Chili & Cabe \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline 11 & Celery & Seledri \\
\hline 12 & Chayote & Labu siam \\
\hline 13 & Corn & Jagung \\
\hline 14 & Cucumber & Mentimun \\
\hline 15 & Eggplant & Terong ungu \\
\hline 16 & Garlic & Bawang putih \\
\hline 17 & Green bean & Kacang hijau \\
\hline 18 & Leek & Bawang perai \\
\hline 19 & Lettuce & Selada \\
\hline 20 & Long bean & Kacang panjang \\
\hline 21 & Mushroom & Jamur \\
\hline 22 & Mustrad greens & Sawi hijau \\
\hline 23 & Onion & Bawang bombay \\
\hline 24 & Papaya leaf & Daun pepaya \\
\hline 25 & Pepper & Lada \\
\hline 26 & Potato & Kentang \\
\hline 27 & Pumpkin & Labu \\
\hline 28 & Radish & Lobak \\
\hline 29 & Soybean & Kedelai \\
\hline 30 & Spinach & Bayam \\
\hline 31 & Sweet potato & Ubi jalar \\
\hline 32 & Tomato & Tomat \\
\hline 33 & Twisted cluster bean & Petai \\
\hline 34 & Water spinach & Kangkung \\
\hline 35 & Zucchini & Mentimun jepang \\
\hline \multicolumn{3}{|c|}{}
\end{tabular}

\section*{B. Pertemuan Kedua}

Topic : Members of Family

\begin{tabular}{|c|c|c|}
\hline No & Bahasa Inggris & Bahasa Indonesia \\
\hline 1 & Father & Ayah \\
\hline 2 & Mather & Ibu \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline 3 & Brother & Abang \\
\hline 4 & Sister & Kakak \\
\hline 5 & Aunty & Bibi \\
\hline 6 & Uncle & Paman \\
\hline 7 & Cousin & Sepupu \\
\hline 8 & Nephew & Keponakan (LK) \\
\hline 9 & Niece & Keponakan (PR) \\
\hline 10 & Grandfather & Kakek \\
\hline 11 & Grandmather & Nenek \\
\hline
\end{tabular}

1

Appendix VI
LEARNING MATERIAL
(Control Class)
A. Pertemuan Pertama

Topic : Vegetables

\begin{tabular}{|c|c|c|}
\hline No & Bahasa Inggris & Bahasa Indonesia \\
\hline 1 & Aubergine & Terong \\
\hline 2 & Bamboo shoots & Rebung \\
\hline 3 & Banana bud & Jantung pisang \\
\hline 4 & Bean & Buncis \\
\hline 5 & Beansprout & Taoge \\
\hline 6 & Brocoli & Brocoli \\
\hline 7 & Cabbage & Kol \\
\hline 8 & Carrot & Wortel \\
\hline 9 & Cassava leaf & Daun singkong \\
\hline 10 & Chili & Cabe \\
\hline 11 & Celery & Seledri \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline 12 & Chayote & Labu siam \\
\hline 13 & Corn & Jagung \\
\hline 14 & Cucumber & Mentimun \\
\hline 15 & Eggplant & Terong ungu \\
\hline 16 & Garlic & Bawang putih \\
\hline 17 & Green bean & Kacang hijau \\
\hline 18 & Leek & Bawang perai \\
\hline 19 & Lettuce & Selada \\
\hline 20 & Long bean & Kacang panjang \\
\hline 21 & Mushroom & Jamur \\
\hline 22 & Mustrad greens & Sawi hijau \\
\hline 23 & Onion & Bawang bombay \\
\hline 24 & Papaya leaf & Daun pepaya \\
\hline 25 & Pepper & Lada \\
\hline 26 & Potato & Kentang \\
\hline 27 & Pumpkin & Labu \\
\hline 28 & Radish & Lobak \\
\hline 29 & Soybean & Kedelai \\
\hline 30 & Spinach & Bayam \\
\hline 31 & Sweet potato & Ubi jalar \\
\hline 32 & Tomato & Tomat \\
\hline 33 & Twisted cluster bean & Petai \\
\hline 34 & Water spinach & Kangkung \\
\hline 35 & Zucchini & Mentimun jepang \\
\hline & Jumlah & 35 \\
\hline
\end{tabular}

\section*{B. Pertemuan Kedua}

Topic : Members of Family

\begin{tabular}{|c|c|c|}
\hline No & Bahasa Inggris & Bahasa Indonesia \\
\hline 1 & Father & Ayah \\
\hline 2 & Mather & Ibu \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline 3 & Brother & Abang \\
\hline 4 & Sister & Kakak \\
\hline 5 & Aunty & Bibi \\
\hline 6 & Uncle & Paman \\
\hline 7 & Cousin & Sepupu \\
\hline 8 & Nephew & Keponakan (LK) \\
\hline 9 & Niece & Keponakan (PR) \\
\hline 10 & Grandfather & Kakek \\
\hline 11 & Grandmather & Nenek \\
\hline
\end{tabular}

Padangsidimpuan, 2017

Validator,
Researcher,

Elmi Sartika Dewi Lubis, S.Pd NIP. 197908132006042001

Annisa Hulhusna Siregar
NIM : 133400005

\section*{Appendix 5}

Key Answer
Pre-test
1. B
2. D
3. A
4. A
5. D
6. B
11. A
21. B
31. A
41. A
12. B
13. A
22. D
32. C
42. B
14. C
23. C
33. A
43. A
.
15. B
24. D
34. B
44. C
16. A
25. A
35. A
45. A
26. D
36. A
46. A
7. D
17. A
27. B
37. A
47. C
8. D
18. D
19. A
28. A
38. D
48. A
9. A
10. D
20. C
29. A
39. A
49. B
30. B
40. B
50. A

\section*{Post-test}
\begin{tabular}{|c|c|c|c|c|}
\hline 1. C & 11. A & 21. A & 31. D & 41. B \\
\hline 2. C & 12. D & 22. B & 32. A & 42. C \\
\hline 3. A & 13. A & 23. D & 33. B & 43. C \\
\hline 4. A & 14. C & 24. D & 34. A & 44. D \\
\hline 5. B & 15. A & 25. A & 35. D & 45. A \\
\hline 6. D & 16. A & 26. D & 36. D & 46. B \\
\hline 7. A & 17. B & 27. A & 37. A & 47. A \\
\hline 8. D & 18. D & 28. B & 38. B & 48. D \\
\hline 9. B & 19. A & 29. A & 39. D & 49. A \\
\hline 10. B & 20. C & 30. A & 40. A & 50. A \\
\hline
\end{tabular}

\section*{Appendix VII}

INDICATOR OF VOCABULARY
\begin{tabular}{|c|c|c|c|c|c|}
\hline NO & & INDICATOR & TOPIC & Number of Items & Score \\
\hline \multirow[t]{4}{*}{1.} & \multirow{4}{*}{PRE TEST} & Identify The
Meaning & 1. Vegetables & & \\
\hline & & & 2. Members of family & & \\
\hline & & Memorize & 1. Vegetables & & \\
\hline & & & 2. Members of family & & \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|}
\hline & & & & \\
\hline & & & Total & 50 \\
\hline \multirow[t]{5}{*}{2.} & \multirow{5}{*}{POST-
TEST} & \multirow[t]{2}{*}{Identify The
Meaning} & 1. Vegetables & \\
\hline & & & 2. Members of family & \\
\hline & & & & \\
\hline & & Memorize The word & 1. Vegetables & \\
\hline & & & 2. Members of family & \\
\hline & & & Total & 50 \\
\hline
\end{tabular}

\section*{Appendix VIII}

\section*{INSTUMENTS FOR PRE-TEST}
\begin{tabular}{ll} 
Name & \(:\) \\
Class
\end{tabular}

Answer the questions below by giving cross ( X ) in the correct answer!
1. The meaning of carrot is
a. Wortel
c. Lobak
b. Kol
d. Bayam
2. Terong in english is
a. Bean
c. Aubergine
b. Beansprout
d. Cucumber
3. .... Taste spicy (terasa pedas).
a. Tomato
c. Corn
b. Chili
d. Celery
4. The name of vegetables behind is
a. Brocoli
c. Bean
b. Mushroom
d. Cabbage

5. My mother use this vegetables to cook soup.
(ibu saya menggunakan sayuran ini untuk memasak sup)
a. Garlic and onion
c. Cucumber and lettuce
b. Chayote and leek
d. Chili and lemon
6. What does ' beansprout' mean?
a. Taoge
c. Kacang
b. Kentang
d. Kangkung
7. What we call vegetables behind ?
a. Carrot
c. Corn
b. Brocoli
d. Spinach

8. Bitter vegetable is ....
a. Bean
c. Cassava leaf
b. Bamboo shoots
d. Papaya leaf
9. Water spinach in Indonesian language is ....
a. Bayam
c. Labu
b. Kangkung
d. Petai
10. What vegetables do you like ?
a. I like strawberry
c. I like orange
b. I like pumpkin
d. I like Guava
11. Jantung pisang in English is \(\qquad\)
a. Aubergine
c. Brocolli
b. Bamboo shoots
d. Banana bud
12. The vegetables contains with vitamint A ?
a. Tomato
c. Potato
b. Chili
d. Corn
13. Kentang in English is ....
a. Tomato
c. Potato
b. Soybean
d. Chayote
14. The name of picture behind is
a. Mushroom
c. Onion
b. Leek
d. Garlic

15. What do you call " jamur " in english
a. Mushroom
c. Pumpkin
b. Radish
d. Zucchini
16. What do we use to make the food aromatic?
a. Onion
c. Twisted cluster bean
b. Tomato
d. Chili
17. Bawang perai in English is ..
a. Leek
c. Garlic
b. Onion
d. Pepper
18. What does ' cabbage' means ....
a. Wortel
c. Kol
b. Mentimun
d. Lobak
19. What is the meaning of Banana bud
a. Buncis
c. Jantung pisang
b. Kacang panjang
d. Brokoli
20. The color is green. The aroma too sting for our nose. it is called by \(\qquad\)
a. Chilli
c. Twisted cluster bean.
b. Papaya leaf
d. Zucchini
21. What does ' bamboo shoots' mean ?
a. Rebung
c. Bambu
b. Lobak
d. Buncis
22. This vegetables make our sleep be sound. Its called by
a. Bean
c. Water spinach
b. Cabbage
d. Spinach
23. ...... is the favorite food of Rabbit.
a. Bean
c. Corn
b. Mushroom
d. Carrot
24. What we call the picture?
a. Chayote
c. Chili
b. Cucumber
d. Celery
25. What do we call ' daun pepaya' in English ?
a. Cassava leaf
c. Banana bud
b. Papaya
d. Papaya leaf
26. The leader of a family is ...
a. Father
c. Grandfather
b. Mother
d. Brother
27. My mother has son. Her son is my ..
a. Brother
c. Cousin
b. Sister
d. Nephew
28. My father has daughter. His daughter is my ....
a. Sister
c. Cousin
b. Brother
d. Niece
29. The meaning of niece
a. Sepupu
c. Keponakan laki-laki
b. Keponakan laki-laki
d. Kakak
30. Father of my daddy is my
a. Grandfather
c. Uncle
b. Grandma
d. Father
31. My mother and my father is ..
a. My beloved
c. My parents
b. My love
d. My everything
32. Son of my sister is my ...
a. Nephew
c. Son
b. Niece
d. Daughter
33. My king in my life is ....
a. My mather
c. My brother
b. My father
d. My sister
34. My brother is my .. of my mother.
a. Daughter
c. Niece
b. Son
d. Brother
35. What we call ' Paman' in English ?
a. Uncle
c. Niece
b. Aunty
d. Nephew
36. My father has wife. His wife is my ....
a. Mother
c. Daughter
b. Aunty
d. Niece
37. Daughter of sister is my
a. Niece
c. Sister
b. Nephew
d. Cousin
38. Sepupu in English is ....
a. Niece
c. Cousin
b. Nephew
d. sister
39. My daughter is .... of my sister
a. Niece
c. Son
b. Daughter
d. Nephew
40. What does 'Aunty' mean ...
a. Paman
c. Sepupu
b. Bibi
d. Keponakan
41. My sister is .... of my mother.
a. Son
c. Niece
42. What does 'Nephew' means .
a. Sepupu
c. Keponakan PR
b. Paman
d. keponakan LK
43. Kakak laki-laki in English is ...
a. Daughter
c. Cousin
b. Son
d. brother
44. What the meaning of grandfather ?
a. Nenek
c. Kakek
b. Paman
d. ayah
45. She is mom of our mother. We call her by ...
a. Grandfather
c. Daughter
b. Grandmather
d. aunty
46. What we call the picture ?
a. Eggplant
c. Garlic
b. Aubergine
d. Cucumber

47. The picture behind in English is ...
a. Potato
c. Tomato
b. Sweet potato
d. Corn

48. The picture of Cucumber is ..
a.

c.


d.

49. What we call the vegetables behind ?
a. Spinach
c. Bean
b. Mustard
d.Brocolli
50. Bawang putih in English is ...
a. Onion
c. Garlic
b. Beansprout
d. Leek

\section*{Appendix IX}

\section*{INSTUMENTS FOR POST-TEST}

\section*{Name}

\section*{Class :}

Answer the questions below by giving cross \((X)\) in the correct answer!
51. The name of vegetables behind is
c. Brocoli
c. Bean
d. Mushroom
d. Eggplant

52. The vegetables contains with vitamint A ?
c. Tomato
c. Potato
d. Chili
d. Corn
53. Tauge in english is \(\qquad\)
c. Bean
c. Aubergine
d. Beansprout
d. Cucumber
54. .... Taste spicy (terasa pedas).
c. Tomato
c. Corn
d. Chili
d. Celery
55. My mother use this vegetables to cook soup.
(ibu saya menggunakan sayuran ini untuk memasak sup)
c. Garlic and onion
c. Cucumber and lettuce
d. Chayote and leek
d. Chili and lemon
56. What does ' Water spinach' mean?
c. Taoge
c. Kacang
d. Kentang
d. Kangkung
57. What we call vegetables behind ?
c. Chayote
c. Corn
d. Cucumber
d. Chili

58. Bitter vegetable is ....
c. Bean
c. Cassava leaf
d. Bamboo shoots
d. Papaya leaf
59. Spinach in Indonesian language is ....
c. Bayam
c. Labu
d. Kangkung
d. Petai
60. What vegetables do you like ?
c. I like strawberry
c. I like orange
d. I like pumpkin
d. I like Guava
61. Rebung in English is \(\qquad\)
c. Aubergine
c. Brocolli
d. Bamboo shoots
d. Banana bud
62. Labu siam in English is
c. Tomato
c. Potato
d. Soybean
d. Chayote
63. The meaning of cabbage is \(\qquad\)
c. Kol
c. Terong
d. Cabe
d. Wortel
64. The name of picture behind is
c. Soybean
c. Cucumber
d. Leek
d. Corn

65. What do you call " Mentimun Jepang "in english ...
c. Mushroom
c. Pumpkin
d. Radish
d. Zucchini
66. What do we use to make the food aromatic?
c. Onion
c. Twisted cluster bean
d. Tomato
d. Chili
67. Kedelai in English is ...
a. Soybean
c. Bean
b. Long bean
d. Pepper
68. What does ' Radish' means ...
c. Wortel
c. Kol
d. Mentimun
d. Lobak
69. What is the meaning of Long bean
c. Buncis
c. Jantung pisang
d. Kacang panjang
d. Brokoli
70. The color is green. The aroma too sting for our nose. it is called by \(\qquad\)
c. Chilli
c. Twisted cluster bean.
d. Papaya leaf
d. Zucchini
71. What does ' bean' mean ?
c. Rebung
c. Bambu
d. Lobak
d. Buncis
72. This vegetables make our sleep be sound. Its called by
c. Bean
c. Water spinach
d. Cabbage
d. Spinach
73. ...... is the favorite food of Rabbit.
c. Bean
c. Corn
d. Mushroom
d. Carrot
74. What we call the picture ?
a. Beansprout
c. Twisted cluaster bean
b. Bean
d. Celery
75. What do we call ' rebung' in English ?
c. Cassava leaf
c. Banana bud
d. Papaya
d. Papaya leaf
76. The Queen of a family is ....
c. Father
c. Grandfather
d. Mother
d. Brother
77. My mother has son. Her son is my .
c. Brother
c. Cousin
d. Sister
d. Nephew
78. My father has daughter. His daughter is my
c. Sister
c. Cousin
d. Brother
d. Niece
79. The meaning of Nephew \(\qquad\)
c. Sepupu
c. Keponakan laki-laki
d. Keponakan laki-laki
d. Kakak
80. Mather of my daddy is my
c. Grandfather
c. Uncle
d. Grandmther
d. Father
81. My mother and my father is ...
c. My beloved
c. My parents
d. My love
d. My everything
82. Daughter of my sister is my ...
c. Nephew
c. Son
d. Niece
d. Daughter
83. My king in my life is ....
c. My mather
c. My brother
d. My father
d. My sister
84. My sister is my .... of my mother.
c. Daughter
c. Niece
d. Son
d. Brother
85. What we call ' Bibi' in English ?
a. Uncle
c. Niece
b. Aunty
d. Nephew
86. My father has wife. His wife is my ....
c. Mother
c. Daughter
d. Aunty
d. Niece
87. Son of sister is my ..
c. Niece
c. Sister
d. Nephew
d. Cousin
88. Sepupu in English is ....
c. Niece
c. Cousin
d. Nephew
d. sister
89. My daughter is .... of my sister
c. Niece
c. Son
d. Daughter
d. Nephew
90. What does ' Cousin' mean ...
a. Paman
c. Sepupu
b. Bibi
d. Keponakan
91. My sister is .... of my mother.
b. Son
c. Niece
c. Daughter
d. Nephew
92. What does ' Niece' means ...
c. Sepupu
c. Keponakan PR
d. Paman
d. keponakan LK
93. Kakak perempuan in English is ...
c. Daughter
c. Cousin
d. Son
d. brother
94. What the meaning of grandmather ?
c. Nenek
c. Kakek
d. Paman
d. ayah
95. She is mom of our mother. We call her by .
c. Grandfather
c. Daughter
d. Grandmather
d. aunty
96. What we call the picture behind ?
c. Eggplant
c. Garlic
d. Aubergine
d. Cucumber

97. The picture behind in English is ...
a. Carrot
c. Tomato
b. Sweet potato
d. Corn
98. The picture of Banana bud is ..
a.

c.

b.

d.

99. What we call the vegetables behind ?
c. Spinach
c. Bean
d. Mustard
d.Brocolli

100. Bawang perai in English is ...
a. Onion
c. Garlic
b. Beansprout
d. Leek

\section*{Appendix 16}

\section*{Score of Experimental Class and Control Class Pre- Test}
1. Score of Experimental Class Pre Test before using Teams Games Tournaments Method
\begin{tabular}{|c|l|c|}
\hline No & \multicolumn{1}{|c|}{\begin{tabular}{c} 
The Initial Name \\
of Students(n)
\end{tabular}} & Pre-Test \\
\hline 1 & Adi Saputra PGB & 84 \\
\hline 2 & Agung Pramana Siregar & 40 \\
\hline 3 & Aldi Hariansyah Harahap & 60 \\
\hline 4 & Alimunawir & 34 \\
\hline 5 & Ananda Difa Nur Islami & 84 \\
\hline 6 & Attajun Siregar & 60 \\
\hline 7 & Desri Handayani Siregar & 70 \\
\hline 8 & Erik Siregar & 50 \\
\hline 9 & Eko Aprillo & 50 \\
\hline 10 & Karina Zahra Fitria & 62 \\
\hline 11 & Lobe Kahar & 50 \\
\hline
\end{tabular}
\begin{tabular}{|c|l|c|}
\hline 12 & Masitoh Nasution & 50 \\
\hline 13 & Melisa Siregar & 70 \\
\hline 14 & Mutiah Mudmainnah Harahap & 60 \\
\hline 15 & Putri Melinda HSB & 60 \\
\hline 16 & Ricky Wahyudi HRP & 70 \\
\hline 17 & Rifaldi Sihombing & 62 \\
\hline 18 & Riski Ramadhan & 60 \\
\hline 19 & Rizka Amanda Pane & 70 \\
\hline 20 & Sapna Hajiah Ningsih & 62 \\
\hline 21 & Zahrani Nur Pohan & 70 \\
\hline 22 & Zulfadly Simajuntak & 60 \\
\hline \multicolumn{2}{|l|}{} & \(\mathbf{1 3 3 6}\) \\
\hline
\end{tabular}
2. Score of Control Class Pre Test
\begin{tabular}{|c|l|c|}
\hline No & \multicolumn{1}{|c|}{\begin{tabular}{c} 
The Initial Name \\
of Students(n)
\end{tabular}} & Pre-Test \\
\hline 1 & Andi Rahman & 40 \\
\hline 2 & Andri Rizky Audia & 60 \\
\hline 3 & Annisyah & 46 \\
\hline 4 & Aman Tubillah & 60 \\
\hline 5 & Dandi Wahyudi & 50 \\
\hline 6 & Hotma Sari & 60 \\
\hline 7 & Julkarnain Ritonga & 46 \\
\hline 8 & Liski Tukmaida HRP & 60 \\
\hline 9 & Meliana Hutabarat & 60 \\
\hline 10 & MHD Fadly & 80 \\
\hline 11 & Novita Yanti Nasution & 60 \\
\hline 12 & Paisal Harefa & 72 \\
\hline 13 & Parsaoran & 50 \\
\hline 14 & Randy Ananda & 40 \\
\hline 15 & Rania Stevani Alhusna & 80 \\
\hline 16 & Risky Amelia SRG & 72 \\
\hline 17 & Salwa Falia & 70 \\
\hline 18 & Sarman & 70 \\
\hline 19 & Siti Sahara SRG & 70 \\
\hline 20 & Syahroni HSB & 70 \\
\hline 21 & Tia Alisa & 72 \\
\hline 22 & Zukiya Desriana & 70 \\
\hline & & \(\mathbf{1 3 5 8}\) \\
\hline
\end{tabular}

Appendix XVIII

\section*{Score of Experimental Class and Control Class Post- Test}
1. Score of Experimental Class Pre Test after using Teams Games Tournaments Method
\begin{tabular}{|c|l|c|}
\hline No & \multicolumn{1}{|c|}{\begin{tabular}{c} 
The Initial Name \\
of Students(n)
\end{tabular}} & Pre-Test \\
\hline 1 & Adi Saputra PGB & 90 \\
\hline 2 & Agung Pramana Siregar & 60 \\
\hline 3 & Aldi Hariansyah Harahap & 70 \\
\hline 4 & Alimunawir & 60 \\
\hline 5 & Ananda Difa Nur Islami & 80 \\
\hline 6 & Attajun Siregar & 70 \\
\hline 7 & Desri Handayani Siregar & 70 \\
\hline 8 & Erik Siregar & 84 \\
\hline 9 & Eko Aprillo & 70 \\
\hline 10 & Karina Zahra Fitria & 80 \\
\hline 11 & Lobe Kahar & 84 \\
\hline 12 & Masitoh Nasution & 76 \\
\hline 13 & Melisa Siregar & 80 \\
\hline 14 & Mutiah Mudmainnah Harahap & 80 \\
\hline 15 & Putri Melinda HSB & 76 \\
\hline 16 & Ricky Wahyudi HRP & 80 \\
\hline 17 & Rifaldi Sihombing & 76 \\
\hline 18 & Riski Ramadhan & 80 \\
\hline 19 & Rizka Amanda Pane & 76 \\
\hline 20 & Sapna Hajiah Ningsih & 76 \\
\hline 21 & Zahrani Nur Pohan & 60 \\
\hline 22 & Zulfadly Simajuntak & 80 \\
\hline & \multicolumn{4}{|l|}{} \\
\hline
\end{tabular}
2. Score of Control Class Post - Test
\begin{tabular}{|c|l|c|}
\hline No & \multicolumn{1}{|c|}{\begin{tabular}{c} 
The Initial Name \\
of Students(n)
\end{tabular}} & Pre-Test \\
\hline 1 & Andi Rahman & 50 \\
\hline 2 & Andri Rizky Audia & 66 \\
\hline 3 & Annisyah & 74 \\
\hline 4 & Aman Tubillah & 66 \\
\hline 5 & Dandi Wahyudi & 60 \\
\hline 6 & Hotma Sari & 66 \\
\hline 7 & Julkarnain Ritonga & 74 \\
\hline 8 & Liski Tukmaida HRP & 70 \\
\hline 9 & Meliana Hutabarat & 66 \\
\hline
\end{tabular}
\begin{tabular}{|c|l|c|}
\hline 10 & MHD Fadly & 70 \\
\hline 11 & Novita Yanti Nasution & 66 \\
\hline 12 & Paisal Harefa & 50 \\
\hline 13 & Parsaoran & 70 \\
\hline 14 & Randy Ananda & 60 \\
\hline 15 & Rania Stevani Alhusna & 80 \\
\hline 16 & Risky Amelia SRG & 70 \\
\hline 17 & Salwa Falia & 80 \\
\hline 18 & Sarman & 70 \\
\hline 19 & Siti Sahara SRG & 60 \\
\hline 20 & Syahroni HSB & 66 \\
\hline 21 & Tia Alisa & 70 \\
\hline 22 & Zukiya Desriana & 74 \\
\hline & & \(\mathbf{1 4 7 2}\) \\
\hline
\end{tabular}

\section*{Appendix XIX}

\section*{RESULT OF THE NORMALITY TEST (VII -8) IN PRE-TEST}
1. The score of experimental class in pre test from low score to high score:
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|}
\hline 34 & 40 & 50 & 50 & 50 & 50 & 60 & 60 & 60 & 60 \\
\hline 60 & 60 & 62 & 62 & 70 & 70 & 70 & 70 & 70 & 70 \\
\hline 84 & 84 & \multicolumn{9}{|c|}{} \\
\hline
\end{tabular}
2. High \(=84\)

Low \(=34\)
Range \(=\) High - Low
\[
\begin{aligned}
& =84-34 \\
& =50
\end{aligned}
\]
3. Total of Classes
\[
\begin{aligned}
& =1+3,3 \log (\mathrm{n}) \\
& =1+3,3 \log (22) \\
& =1+3,3(1,3424) \\
& =1+4,429 \\
& =5,429 \\
& =5
\end{aligned}
\]
4. Length of Classes \(=\frac{\text { range }}{\text { totalofclass }}=\frac{50}{5}=10\)
5. Mean
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Interval Class & F & X & x & fx & \(\mathrm{x}^{2}\) & \(\mathrm{fx}^{2}\) \\
\hline \(34-43\) & 2 & 38.5 & +2 & 4 & 4 & 8 \\
\hline \(44-53\) & 4 & 48.5 & +1 & 4 & 1 & 4 \\
\hline \(54-63\) & 9 & 58.5 & 0 & 0 & 0 & 0 \\
\hline \(64-73\) & 5 & 68.5 & -1 & -5 & 1 & 5 \\
\hline \(74-83\) & 0 & 0 & 0 & 0 & 0 & 0 \\
\hline \(84-93\) & 2 & 88.5 & -2 & -4 & 4 & 8 \\
\hline \(\mathrm{~F}=10\) & 22 & & - & -1 & - & 25 \\
\hline
\end{tabular}

\section*{\{ EMBED Equation. 3 \}}
\[
\begin{aligned}
& =58.5+10\left(\frac{-1}{22}\right) \\
& =58.5+10(-0.045) \\
& =58.5+-0.45 \\
& =58.05 \\
\mathrm{SD}_{\mathrm{t}}= & i \sqrt{\frac{\sum f x^{2}}{n}-\left(\frac{\sum f x \prime}{n}\right)^{2}} \\
= & 10 \sqrt{\frac{25}{22}-\left(\frac{-1}{22}\right)^{2}} \\
= & 10 \sqrt{1.13-(-0.45)^{2}} \\
= & 10 \sqrt{1.13-0.00} \\
= & 10 \sqrt{1.13} \\
= & 10 \times 1.06 \\
= & 10.6
\end{aligned}
\]

\section*{Table of Normality Data Test with Chi Kuadrad Formula}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline \begin{tabular}{c} 
Interval \\
of Score
\end{tabular} & \begin{tabular}{c} 
Real Upper \\
Limit
\end{tabular} & \begin{tabular}{c}
\(\mathrm{Z}-\) \\
Score
\end{tabular} & \begin{tabular}{c} 
Limit of \\
Large of the \\
Area
\end{tabular} & \begin{tabular}{c} 
Large \\
of area
\end{tabular} & \(\mathrm{f}_{\mathrm{h}}\) & \(\mathrm{f}_{0}\) & \begin{tabular}{c}
\(\frac{\left(\mathrm{f}_{0}-\mathrm{f}_{\mathrm{h}}\right)}{\mathrm{f}_{\mathrm{h}}}\)
\end{tabular} \\
\hline \(84-93\) & 93.5 & 3.34 & 0,4996 & 0.07 & 1.54 & 2 & 0.29 \\
\(74-83\) & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\
\(64-73\) & 73.5 & 1.45 & 0.4265 & 0.23 & 5.06 & 5 & -0.01 \\
\(54-63\) & 63.5 & 0.51 & 0.1950 & -0.14 & -3.08 & 9 & -1.92 \\
\(44-53\) & 53.5 & -0.42 & 0.33724 & 0.25 & 5.5 & 4 & -0.27 \\
\(34-43\) & 43.5 & -1.37 & 0.08534 & 0.07 & 1.54 & 2 & 0.29 \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|l|l|l|l|}
\hline & 34.5 & -2.22 & & & & & \\
\hline \multicolumn{7}{|l|}{} & \\
\hline
\end{tabular}

Based on the table above,the reseracher found that \(\mathrm{x}^{2}\) count \(=-1.62\) while \(\mathrm{x}_{\text {table }}^{2}=11.070\). Because \(\mathrm{x}^{2}{ }_{\text {count }}<\mathrm{x}_{\text {table }}^{2}(-1.62<11.070)\) with degree of freedom \((\mathrm{dk})=6-1=5\) and significant level \(\{\) EMBED Equation. 3\(\}=5 \%\), distribution of VII-8 class (pre-test) is normal.

\section*{6. Median}
\begin{tabular}{|c|c|c|c|}
\hline No & Interval & f & Fk \\
\hline 1 & \(34-43\) & 2 & 2 \\
\hline 2 & \(44-53\) & 4 & 6 \\
\hline 3 & \(\mathbf{5 4 - 6 3}\) & \(\mathbf{9}\) & 15 \\
\hline 4 & \(64-73\) & 5 & 20 \\
\hline & \(74-83\) & 0 & 0 \\
\hline 65 & \(84-93\) & 2 & 22 \\
\hline
\end{tabular}

Position of Me in the interval of classes is number 2 , that:
\[
\begin{array}{ll}
\mathrm{Bb} & =53.5 \\
\mathrm{~F} & =6 \\
\mathrm{Fm} & =9 \\
\mathrm{i} & =10 \\
\mathrm{n} & =22 \\
1 / 2 \mathrm{n} & =11 \\
\mathrm{So}: & \\
\mathrm{Me} & =\mathrm{Bb}+\mathrm{i}
\end{array}
\]
\{ EMBED Equation. 3 \}
\[
=53.5+10\left(\frac{11-6}{9}\right)
\]
\[
\begin{aligned}
& =53.5+10(0.55) \\
& =53.5+5.5 \\
& =59
\end{aligned}
\]
7. Modus
\begin{tabular}{|c|c|c|c|}
\hline No & Interval & f & Fk \\
\hline 1 & \(34-43\) & 2 & 2 \\
\hline 2 & \(44-53\) & 4 & 6 \\
\hline 3 & \(\mathbf{5 4 - 6 3}\) & \(\mathbf{9}\) & 15 \\
\hline 4 & \(64-73\) & 5 & 20 \\
\hline 5 & \(74-83\) & 0 & 0 \\
\hline 6 & \(84-93\) & 2 & 22 \\
\hline
\end{tabular}
\[
\begin{aligned}
\mathrm{M}_{\mathrm{o}} & =L+\frac{d_{1}}{d_{1}+d_{2}} i \\
\mathrm{~L} & =53.5 \\
\mathrm{~d}_{1} & =5 \\
\mathrm{~d}_{2} & =4 \\
\mathrm{i} & =10
\end{aligned}
\]

So,
\[
\begin{aligned}
\mathrm{M}_{\mathrm{o}} & =53.5+\frac{5}{5+4} 10 \\
& =53.5+0.55(10) \\
& =53.5+5.56 \\
& =59.1
\end{aligned}
\]

\section*{Appendix XX}

\section*{RESULT OF THE NORMALITY TEST ( VII-10) IN PRE-TEST}
1. The score of control class in pre test from low score to high score:
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|}
\hline 40 & 40 & 46 & 46 & 50 & 50 & 60 & 60 & 60 & 60 \\
\hline 60 & 60 & 70 & 70 & 70 & 70 & 70 & 72 & 72 & 72 \\
\hline 80 & 80 & \multicolumn{18}{|c|}{} \\
\hline
\end{tabular}
2. High \(=80\)

Low \(=40\)
Range \(=\) High - Low
\[
\begin{aligned}
& =80-40 \\
& =40
\end{aligned}
\]
3. Total of Classes
\[
\begin{aligned}
& =1+3,3 \log (\mathrm{n}) \\
& =1+3,3 \log (22) \\
& =1+3,3(1,3224) \\
& =1+4,429 \\
& =5,429 \\
& =5
\end{aligned}
\]
4. Length of Classes
\[
=\frac{\text { range }}{\text { totalof class }}=\frac{40}{5}=8
\]
5. Mean
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Interval Class & F & X & x & fx & \(\mathrm{x}^{2}\) & \(\mathrm{fx}^{\mathbf{2}}\) \\
\hline \(40-47\) & 2 & 43.5 & +2 & 4 & 4 & 8 \\
\hline \(48-55\) & 4 & 51.5 & +1 & 4 & 1 & 4 \\
\hline \(\mathbf{5 6 - 6 3}\) & \(\mathbf{6}\) & \(\mathbf{5 9 . 5}\) & \(\mathbf{0}\) & \(\mathbf{0}\) & \(\mathbf{0}\) & \(\mathbf{0}\) \\
\hline \(64-71\) & 5 & 67.5 & -1 & -5 & 1 & 5 \\
\hline \(72-79\) & 3 & 75.5 & -2 & -6 & 5 & 12 \\
\hline \(80-87\) & 2 & 83.5 & -3 & -6 & 9 & 18 \\
\hline & 22 & & - & -9 & - & 47 \\
\hline
\end{tabular}
\[
\begin{aligned}
& \begin{aligned}
\{ & \text { EMBED Equation. } 3 \text { \} } \\
& =59.5+8\left(\frac{-9}{22}\right) \\
& =59.5+8(-0.40) \\
& =59.5+-3.2 \\
& =56.3 \\
\mathrm{SD}_{\mathrm{t}}= & i \sqrt{\frac{\sum f x^{2}}{n}-\left(\frac{\sum f x^{\prime}}{n}\right)^{2}} \\
= & 8 \sqrt{\frac{47}{22}-\left(\frac{-9}{22}\right)^{2}} \\
= & 8 \sqrt{2.13-(-0.40)^{2}} \\
= & 8 \sqrt{2.13-0.16} \\
= & 8 \sqrt{1.97} \\
= & 8 \times 1.40 \\
= & 11.2
\end{aligned}
\end{aligned}
\]

Table of Normality Data Test with Chi Kuadrad Formula
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline \begin{tabular}{c} 
Interval \\
of Score
\end{tabular} & \begin{tabular}{c} 
Real Upper \\
Limit
\end{tabular} & \begin{tabular}{c}
\(\mathrm{Z}-\) \\
Score
\end{tabular} & \begin{tabular}{c} 
Limit of \\
Large of the \\
Area
\end{tabular} & \begin{tabular}{c} 
Large \\
of area
\end{tabular} & \(\mathrm{f}_{\mathrm{h}}\) & \(\mathrm{f}_{0}\) & \begin{tabular}{c}
\(\frac{\left(\mathrm{f}_{0}-\mathrm{f}_{\mathrm{h}}\right)}{f_{\mathrm{h}}}\)
\end{tabular} \\
\hline \(80-87\) & 83.5 & 2.42 & 0.4922 & 0.03 & 0.66 & 2 & 2.03 \\
\(72-79\) & 75.5 & 1.71 & 0.4564 & 0.08 & 1.76 & 3 & 0.70 \\
\(64-71\) & 67.5 & 1 & 0.3665 & 0.25 & 5.5 & 5 & -0.09 \\
\(56-63\) & 59.5 & 0.28 & 0.1103 & -0.22 & -4.84 & 6 & -0.23 \\
\(48-55\) & 51.5 & -0.42 & 0.33724 & 0.21 & 4.62 & 4 & -0.13 \\
\(40-47\) & 43.5 & -1.14 & 0.12714 & 0.04 & 0.88 & 2 & 1.27 \\
& 40.5 & -1.41 & 0.07927 & & & & \\
\hline \multicolumn{7}{|c|}{} & \(X^{2}\) \\
\hline
\end{tabular}

Based on the table above, the reseracher found that \(\mathrm{x}^{2}\) count \(=2.15\) while \(\mathrm{x}^{2}\) table \(=11.070\). Because \(\mathrm{x}^{2}{ }_{\text {count }}<\mathrm{x}^{2}\) table \((2.15<11.070)\) with degree of freedom \((\mathrm{dk})=6-1=5\) and significant level \(\{\) EMBED Equation. 3 \} \(=5 \%\), distribution of VII-10 class (pre-test) is normal.

\section*{6. Median}
\begin{tabular}{|c|c|c|c|}
\hline No & Interval & f & Fk \\
\hline 1 & \(40-47\) & 2 & 3 \\
\hline 2 & \(48-55\) & 4 & 6 \\
\hline 3 & \(\mathbf{5 6 - 6 3}\) & \(\mathbf{6}\) & 12 \\
\hline 4 & \(64-71\) & 5 & 17 \\
\hline 5 & \(72-79\) & 3 & 20 \\
\hline 6 & \(80-87\) & 2 & 22 \\
\hline
\end{tabular}

Position of Me in the interval of classes is number 2, that:
\[
\begin{array}{ll}
\mathrm{Bb} & =55.5 \\
\mathrm{~F} & =6 \\
\mathrm{Fm} & =6 \\
\mathrm{i} & =8 \\
\mathrm{n} & =22 \\
1 / 2 \mathrm{n} & =11 \\
\mathrm{So}: & \\
\mathrm{Me} & =\mathrm{Bb}+\mathrm{i}
\end{array}
\]
\{ EMBED Equation. 3 \}
\[
=55.5+8\left(\frac{11-6}{6}\right)
\]
\[
=55.5+8(0.83)
\]
\[
=55.5+6.64
\]
\[
=62.14
\]
7. Modus
\begin{tabular}{|c|c|c|c|}
\hline No & Interval & f & Fk \\
\hline 1 & \(40-47\) & 2 & 3 \\
\hline 2 & \(48-55\) & 4 & 6 \\
\hline 3 & \(\mathbf{5 6 - 6 3}\) & \(\mathbf{6}\) & 12 \\
\hline 4 & \(64-71\) & 5 & 17 \\
\hline 5 & \(72-79\) & 3 & 20 \\
\hline 6 & \(80-87\) & 2 & 22 \\
\hline
\end{tabular}
\[
\begin{aligned}
\mathrm{M}_{\mathrm{o}} & =L+\frac{d_{1}}{d_{1}+d_{2}} i \\
\mathrm{~L} & =55.5 \\
\mathrm{~d}_{1} & =2 \\
\mathrm{~d}_{2} & =1 \\
\mathrm{i} & =8 \\
\text { So, } & \\
\mathrm{M}_{\mathrm{o}} & =55.5+\frac{2}{2+1} 8 \\
& =55.5+0.66(8) \\
& =55.5+5.28 \\
& =60.78
\end{aligned}
\]

\section*{Appendix XXII}

\section*{RESULT OF THE NORMALITY TEST OF EXPRIMENTAL CLASS (VII8) IN POST-TEST}
1. The score of VII-8 class in post test from low score to high score:
\begin{tabular}{|l|l|l|l|l|l|l|l|l|l|}
\hline 60 & 60 & 60 & 70 & 70 & 70 & 70 & 76 & 76 & 76 \\
\hline 76 & 76 & 80 & 80 & 80 & 80 & 80 & 80 & 80 & 84 \\
\hline 84 & 90 & & & & & & & & \\
\hline
\end{tabular}
2. High \(=90\)

Low \(=60\)
Range = High - Low
\(=90-60\)
\(=30\)
3. Total of Classes \(=1+3,3 \log (\mathrm{n})\)
\[
=1+3,3 \log (22)
\]
\[
=1+3,3(1.3424)
\]
\[
=1+4.429
\]
\[
=5.429
\]
\[
=5
\]
4. Length of Classes \(=\frac{\text { range }}{\text { total of class }}=\frac{30}{5}=6\).
5. Mean
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Interval Class & \(\mathbf{F}\) & \(\mathbf{X}\) & \(\mathbf{x}\) & \(\mathbf{f x}\) & \(\mathbf{x}^{\mathbf{2}}\) & \(\mathbf{f x}^{\mathbf{2}}\) \\
\hline \(60-65\) & 2 & 62.5 & +3 & 6 & 9 & 18 \\
\hline \(66-71\) & 4 & 68.5 & +2 & 8 & 4 & 16 \\
\hline \(72-77\) & 5 & 74.5 & +1 & 5 & 1 & 5 \\
\hline \(78-83\) & 7 & 80.5 & 0 & 0 & 0 & 0 \\
\hline \(84-89\) & 2 & 86.5 & -1 & -2 & 1 & 2 \\
\hline \(90-95\) & 1 & 92.5 & -2 & -2 & 4 & 4 \\
\hline\(i=6\) & 22 & - & - & 15 & & 45 \\
\hline
\end{tabular}
\{ EMBED Equation. 3 \}
\[
\begin{aligned}
& =80.5+6\left(\frac{15}{22}\right) \\
& =80.5+6(0.68) \\
& =80.5+4.09 \\
& =84.59
\end{aligned}
\]
\[
\begin{aligned}
\mathrm{SD}_{\mathrm{t}} & =i \sqrt{\frac{\sum f x^{2}}{n}-\left(\frac{\sum f x \prime}{n}\right)^{2}} \\
& =6 \sqrt{\frac{45}{22}-\left(\frac{15}{22}\right)^{2}} \\
& =6 \sqrt{2.04-(0.68)^{2}} \\
& =6 \sqrt{2.04-0.46} \\
& =6 \sqrt{1.58} \\
& =6 \times 1.25 \\
& =7.5
\end{aligned}
\]

Table of Normality Data Test with Chi Kuadrad Formula
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline \begin{tabular}{c} 
Interval \\
of Score
\end{tabular} & \begin{tabular}{c} 
Real \\
Upper \\
Limit
\end{tabular} & \begin{tabular}{c}
\(\mathrm{Z}-\) \\
Score
\end{tabular} & \begin{tabular}{c} 
Limit of \\
Large of the \\
Area
\end{tabular} & \begin{tabular}{c} 
Large of \\
area
\end{tabular} & \(\mathrm{f}_{\mathrm{h}}\) & \(\mathrm{f}_{0}\) & \begin{tabular}{c}
\(\frac{\left(\mathrm{f}_{0}-\mathrm{f}_{\mathrm{h}}\right)}{\mathrm{f}_{\mathrm{h}}}\)
\end{tabular} \\
\hline \(90-95\) & 95.5 & 1.45 & 0.4265 & 0.18 & 3.96 & 1 & -0.74 \\
\(84-89\) & 89.5 & 0.65 & 0.2422 & -0.20 & -4.4 & 2 & 0.54 \\
\(78-83\) & 83.5 & -0.14 & 0.44433 & 0.27 & 5.94 & 7 & 0.17 \\
\(72-77\) & 77.5 & -0.94 & 0.17361 & 0.13 & 2.86 & 5 & 0.74 \\
\(66-71\) & 71.5 & -1.74 & 0.04093 & 0.03 & 0.66 & 4 & 5.06 \\
\(60-65\) & 65.5 & -2.54 & 0.00554 & 0.00 & 0 & 3 & 0 \\
& 60.5 & -3.21 & 0.00066 & & & & \\
\hline
\end{tabular}

Based on the table above, the researcher found that \(x^{2}\) count \(=5.77\) while \(\mathrm{x}^{2}{ }_{\text {table }}=11.070\). Because \(\mathrm{x}_{\text {count }}^{2}<\mathrm{x}_{\text {table }}^{2}(5.77<11.070)\) with degree of freedom \((\mathrm{dk})=6-1=5\) and significant level \(\{\) EMBED Equation. 3\(\}=5 \%\), distribution of VII-8 class (post-test) is normal.

\section*{6. Median}
\begin{tabular}{|c|c|c|c|}
\hline No & Interval & F & Fk \\
\hline 1 & \(60-65\) & 3 & 2 \\
\hline 2 & \(66-71\) & 4 & 7 \\
\hline 3 & \(72-77\) & 5 & \(\mathbf{1 2}\) \\
\hline 4 & \(\mathbf{7 8} \mathbf{- 8 3}\) & \(\mathbf{7}\) & 19 \\
\hline 5 & \(84-89\) & 2 & 21 \\
\hline & \(90-95\) & 1 & 22 \\
\hline
\end{tabular}

Position of Me in the interval of classes is number 3, that:
\[
\begin{array}{ll}
\mathrm{Bb} & =77.5 \\
\mathrm{~F} & =12 \\
\mathrm{fm} & =7 \\
\mathrm{i} & =6 \\
\mathrm{n} & =22 \\
1 / 2 \mathrm{n} & =11 \\
\text { So }: &
\end{array}
\]
\[
\mathrm{Me}=\mathrm{Bb}+\mathrm{i}
\]
\{ EMBED Equation. 3 \}
\(=77.5+6\left(\frac{11-12}{7}\right)\)
\(=77.5+6(-0.14)\)
\(=77.5+-0.84\)
\(=76.66\)
7. Modus
\begin{tabular}{|c|c|c|c|}
\hline No & Interval & F & Fk \\
\hline 1 & \(60-65\) & 3 & 2 \\
\hline 2 & \(66-71\) & 4 & 7 \\
\hline 3 & \(72-77\) & 5 & 12 \\
\hline 4 & \(\mathbf{7 8 - 8 3}\) & \(\mathbf{7}\) & 19 \\
\hline 5 & \(84-89\) & 2 & 21 \\
\hline & \(90-95\) & 1 & 22 \\
\hline
\end{tabular}
\(\mathrm{M}_{\mathrm{o}}=L+\frac{d_{1}}{d_{1}+d_{2}} i\)
\(\mathrm{L}=77.5\)
\(\mathrm{d}_{1}=2\)
\(\mathrm{d}_{2}=4\)
i \(=6\)

So,
\[
\begin{aligned}
M_{o} & =77.5+\frac{2}{2+5} 6 \\
& =77.5+0.26(6) \\
& =77.5+1.68 \\
& =79.18
\end{aligned}
\]

\section*{Appendix XXIII}

\section*{RESULT OF THE NORMALITY TEST OF CONTROL CLASS (VII-10) IN POST-TEST}
1. The score of VII- 10 class in post test from low score to high score:
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline 50 & 50 & 60 & 60 & 60 & 60 & 66 & 66 & 66 & 66 \\
\hline 66 & 70 & 70 & 70 & 70 & 70 & 70 & 74 & 74 & 74 \\
\hline 80 & 80 & \multicolumn{8}{|l|}{} \\
\hline
\end{tabular}
2. High \(=80\)

Low \(=50\)
Range \(=\) High - Low
\(=80-50\)
\(=30\)
3. Total of Classes \(=1+3,3 \log (\mathrm{n})\)
\(=1+3,3 \log (22)\)
\(=1+3,3(1.3424)\)
\(=1+4.429\)
\(=5.429\)
\(=5\)
4. Length of Classes \(=\frac{\text { range }}{\text { total of class }}=\frac{30}{5}=6\)
5. Mean
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Interval Class & F & X & x & fx & \(\mathrm{x}^{2}\) & \(\mathrm{fx}^{2}\) \\
\hline \(50-55\) & 2 & 52.5 & +3 & 6 & 9 & 18 \\
\hline \(56-61\) & 4 & 58.5 & +2 & 8 & 4 & 16 \\
\hline \(62-67\) & 5 & 64.5 & +1 & 5 & 1 & 4 \\
\hline \(68-73\) & 6 & 70.5 & 0 & 0 & 0 & 0 \\
\hline \(74-79\) & 3 & 76.5 & -1 & -3 & 1 & 3 \\
\hline \(80-85\) & 2 & 82.5 & -2 & -4 & 4 & 8 \\
\hline & 22 & - & - & 12 & - & 49 \\
\hline
\end{tabular}
\{ EMBED Equation. 3 \}
\[
\begin{aligned}
& =70.5+6\left(\frac{12}{22}\right) \\
& =70.5+6(0.54) \\
& =70.5+3.24 \\
& =73.74
\end{aligned}
\]
\[
\begin{aligned}
\mathrm{SD}_{\mathrm{t}} & =i \sqrt{\frac{\sum f x^{2}}{n}-\left(\frac{\sum f x \prime}{n}\right)^{2}} \\
& =6 \sqrt{\frac{49}{22}-\left(\frac{12}{22}\right)^{2}} \\
& =6 \sqrt{2.22-(0.54)^{2}} \\
& =6 \sqrt{2.22-0 .} 29 \\
& =6 \sqrt{1.93} \\
& =6 \times 1.38 \\
& =8.28
\end{aligned}
\]

Table of Normality Data Test with Chi Kuadrad Formula
\begin{tabular}{|l|l|l|l|l|l|l|l|}
\hline Interval & Real & \(\mathrm{Z}-\) & Limit of & Large of & \(\mathrm{f}_{\mathrm{h}}\) & \(\mathrm{f}_{0}\) & \(\left(\mathrm{f}_{0}-\mathrm{f}_{\mathrm{h}}\right)\) \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|}
\hline of Score & \begin{tabular}{c} 
Upper \\
Limit
\end{tabular} & Score & \begin{tabular}{c} 
Large of the \\
Area
\end{tabular} & area & & & \(\mathrm{f}_{\mathrm{h}}\) \\
\hline \(80-85\) & 85.5 & 1.42 & 0.4222 & 0.16 & 3.53 & 2 & -0.43 \\
\(74-79\) & 79.5 & 0.69 & 0.2549 & -0.23 & -5.06 & 3 & -0.40 \\
\(68-73\) & 73.5 & -0.02 & 0.49202 & 0.26 & 5.72 & 6 & 0.04 \\
\(62-67\) & 67.5 & -0.75 & 0.22663 & 0.15 & 3.3 & 5 & 0.51 \\
\(56-61\) & 61.5 & -1.47 & 0.07078 & 0.05 & 1.1 & 4 & 3 \\
\(50-55\) & 55.5 & -2.20 & 0.01390 & 0.01 & 0.22 & 2 & 8.09 \\
& 50.5 & -2.80 & 0.00256 & & & & \\
\hline \multicolumn{8}{|c|}{} \\
\hline \multicolumn{7}{|l|}{\(\mathrm{X}^{2}\)} & 10.81 \\
\hline
\end{tabular}

Based on the table above, the reseracher found that \(\mathrm{x}^{2}\) count \(=\) 10.81 while \(\mathrm{x}_{\text {table }}^{2}=11.070\) because \(\mathrm{x}_{\text {count }}^{2}<\mathrm{x}_{\text {table }}^{2} \quad(10.81<11.070)\) with degree of freedom \((\mathrm{dk})=6-1=5\) and significant level \(\{\) EMBED Equation. 3\(\}=5 \%\), so distribution of VII-10 class (post-test) is normal.
6. Median
\begin{tabular}{|l|l|l|l|}
\hline No & Interval & F & Fk \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|}
\hline 1 & \(50-55\) & 2 & 3 \\
\hline 2 & \(56-61\) & 4 & 6 \\
\hline 3 & \(62-67\) & 5 & \(\mathbf{1 1}\) \\
\hline 4 & \(\mathbf{6 8}-\mathbf{7 3}\) & \(\mathbf{6}\) & 17 \\
\hline 5 & \(74-79\) & 3 & 20 \\
\hline 6 & \(80-85\) & 2 & 22 \\
\hline
\end{tabular}

Position of Me in the interval of classes is number 3, that:
\(\mathrm{Bb}=67.5\)
\(\mathrm{F}=11\)
\(f m=6\)
i \(=6\)
n \(=22\)
\(1 / 2 \mathrm{n}=11\)
So :
\(\mathrm{Me}=\mathrm{Bb}+\mathrm{i}\)
\{ EMBED Equation. 3 \}
\(=67.5+6\left(\frac{11-11}{6}\right)\)
\(=67.5+6(0)\)
\(=67.5+6\)
\(=73.5\)
\(=74\)
7. Modus
\begin{tabular}{|c|c|c|c|}
\hline No & Interval & F & Fk \\
\hline 1 & \(50-55\) & 2 & 3 \\
\hline 2 & \(56-61\) & 4 & 6 \\
\hline 3 & \(62-67\) & 5 & 11 \\
\hline 4 & \(\mathbf{6 8 - 7 3}\) & \(\mathbf{6}\) & 17 \\
\hline 5 & \(74-79\) & 3 & 20 \\
\hline
\end{tabular}
\begin{tabular}{|l|l|l|l|}
\hline 6 & \(80-85\) & 2 & 22 \\
\hline
\end{tabular}
\[
\begin{aligned}
& \mathrm{M}_{\mathrm{o}}=L+\frac{d_{1}}{d_{1}+d_{2}} i \\
& \mathrm{~L}=67.5 \\
& \mathrm{~d}_{1}=1 \\
& \mathrm{~d}_{2}=3 \\
& \mathrm{i}=6
\end{aligned}
\]

So,
\[
\begin{aligned}
\mathrm{M}_{\mathrm{o}} & =67.5+\frac{1}{1+3} 6 \\
& =67.5+0.25(6) \\
& =67.5+1.5 \\
& =69
\end{aligned}
\]

\section*{Appendix XXI}

\section*{HOMOGENEITY TEST (PRE-TEST)}

Calculation of parameter to get variant of the first class as experimental class sample and variant of the second class as control class sample are used homogeneity test by using formula:
\(S^{2}=\)
\{ EMBED Equation. 3 \}
Hypotheses:
\(\mathrm{H}_{0} \quad:\) \{ EMBED Equation. 3 \}
\(\mathrm{H}_{1} \quad\) : \(\{\) EMBED Equation. 3 \}
A. Variant of the VII- 8 class is:
\begin{tabular}{|c|c|c|}
\hline \(\mathbf{N O}\) & \(\mathbf{X i}\) & \(\mathbf{X i}^{\mathbf{2}}\) \\
\hline 1. & 84 & 7056 \\
\hline 2. & 40 & 1600 \\
\hline 3. & 60 & 3600 \\
\hline 4. & 34 & 1156 \\
\hline 5. & 84 & 7056 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|}
\hline 6. & 60 & 3600 \\
\hline 7. & 70 & 4900 \\
\hline 8. & 50 & 2500 \\
\hline 9. & 50 & 2500 \\
\hline 10. & 62 & 3844 \\
\hline 11. & 50 & 2500 \\
\hline 12. & 50 & 2500 \\
\hline 13. & 70 & 4900 \\
\hline 14. & 60 & 3600 \\
\hline 15. & 60 & 3600 \\
\hline 16. & 70 & 4900 \\
\hline 17. & 62 & 3844 \\
\hline 18. & 60 & 3600 \\
\hline 19. & 70 & 4900 \\
\hline 20. & 62 & 3844 \\
\hline 21. & 70 & 4900 \\
\hline 22. & 60 & 3600 \\
\hline Total & \(\mathbf{1 3 3 6}\) & \(\mathbf{8 4 2 5 6}\) \\
\hline
\end{tabular}
\(\mathrm{n}=22\)
\(\sum x i=2622\)
\(\sum_{x i} 2=84256\)
So:
\[
S^{2}=
\]
\{ EMBED Equation. 3 \}
\(=\frac{22(84256)-(1335)^{2}}{22(22-1)}\)
\(=\frac{1853632-1784896}{22(21)}\)
\(=\frac{68736}{462}\)
\(=148.77\)
B. Variant of the VII- 10 class is:
\begin{tabular}{|c|c|c|}
\hline \(\mathbf{N O}\) & \(\mathbf{X i}\) & \(\mathbf{X i}^{\mathbf{2}}\) \\
\hline 1. & 40 & 1600 \\
\hline 2. & 60 & 3600 \\
\hline 3. & 46 & 2116 \\
\hline 4. & 60 & 3600 \\
\hline 5. & 50 & 2500 \\
\hline 6. & 60 & 3600 \\
\hline 7. & 46 & 2116 \\
\hline 8. & 60 & 3600 \\
\hline 9. & 60 & 3600 \\
\hline 10. & 80 & 6400 \\
\hline 11. & 60 & 3600 \\
\hline 12. & 72 & 5184 \\
\hline 13. & 50 & 2500 \\
\hline 14. & 40 & 1600 \\
\hline 15. & 80 & 6400 \\
\hline 16. & 72 & 5184 \\
\hline 17. & 70 & 4900 \\
\hline 18. & 70 & 4900 \\
\hline 19. & 70 & 4900 \\
\hline 20. & 70 & 4900 \\
\hline 21. & 72 & 5184 \\
\hline 22. & 70 & 4900 \\
\hline Total & \(\mathbf{1 3 5 8}\) & \(\mathbf{8 6 8 8 4}\) \\
\hline
\end{tabular}
\[
\begin{aligned}
& \mathrm{n} \quad=22 \\
& \sum x i=1358 \\
& \sum_{x i} 2=86884
\end{aligned}
\]

So:
\[
\begin{aligned}
S^{2} & = \\
& =\frac{22(86884)-(1358)^{2}}{22(22-1)} \\
& =\frac{1911448-1844164}{22(21)} \\
& =\frac{67284}{462} \\
& =145.63
\end{aligned}
\]

The Formula was used to test hypothesis was;
1. VII-8 and VII-10.
\[
\mathrm{F}=\frac{\text { The Biggest Variant }}{\text { The Smallest Variant }}
\]

So:
\[
\begin{aligned}
\mathrm{F} & =\frac{148.77}{145.63} \\
& =1.02
\end{aligned}
\]

After doing the calculation, researcher found that \(F_{\text {count }}=1.02\) with \(\{\) EMBED Equation. 3\(\}^{5 \%}\) and \(\mathrm{dk}=21\) and 21 from the distribution list F , researcher found that \(\mathrm{F}_{\text {table }}=2.02\), cause \(\mathrm{F}_{\text {count }}<\mathrm{F}_{\text {table }}(1.02<2.02)\). So, there is no difference in variant between the VII-8 class and VII-10 class. It means that the variant is homogenous.

\section*{Appendix XXIV}

HOMOGENEITY TEST ( POST TEST )

\section*{1. EXPERIMENT CLASS}
\begin{tabular}{|c|c|c|}
\hline \(\mathbf{N O}\) & \(\mathbf{X i}\) & \(\mathbf{X i}^{\mathbf{2}}\) \\
\hline 23. & 90 & 8100 \\
\hline 24. & 60 & 3600 \\
\hline 25. & 70 & 4900 \\
\hline 26. & 60 & 3600 \\
\hline 27. & 80 & 6400 \\
\hline 28. & 70 & 4900 \\
\hline 29. & 70 & 4900 \\
\hline 30. & 84 & 7396 \\
\hline 31. & 70 & 4900 \\
\hline 32. & 80 & 6400 \\
\hline 33. & 84 & 7396 \\
\hline 34. & 76 & 5776 \\
\hline 35. & 80 & 6400 \\
\hline 36. & 80 & 6400 \\
\hline 37. & 76 & 5776 \\
\hline 38. & 80 & 6400 \\
\hline 39. & 76 & 5776 \\
\hline 40. & 80 & 6400 \\
\hline 41. & 76 & 5776 \\
\hline 42. & 76 & 5776 \\
\hline 43. & 60 & 3600 \\
\hline 44. & 80 & 6400 \\
\hline
\end{tabular}
Total 1658 126292
\[
\begin{aligned}
& \mathrm{n}=22 \\
& \quad \begin{array}{l}
\quad x i=1658 \\
\quad \sum_{x i} 2=126292
\end{array}
\end{aligned}
\]

So:
\[
\begin{aligned}
S^{2} & = \\
& =\frac{22(126292)-(1658)^{2}}{22(22-1)} \\
& =\frac{2778424-2748964}{22(21)} \\
& =\frac{229460}{462} \\
& =63.76
\end{aligned}
\]

\section*{2. CONTROL CLASS}
\begin{tabular}{|c|c|c|}
\hline \(\mathbf{N O}\) & \(\mathbf{X i}\) & \(\mathbf{X i}^{\mathbf{2}}\) \\
\hline 23. & 50 & 2500 \\
\hline 24. & 66 & 4356 \\
\hline 25. & 74 & 5476 \\
\hline 26. & 66 & 4356 \\
\hline 27. & 60 & 3600 \\
\hline 28. & 66 & 4356 \\
\hline 29. & 74 & 5476 \\
\hline 30. & 70 & 4900 \\
\hline 31. & 66 & 4356 \\
\hline 32. & 70 & 4900 \\
\hline 33. & 66 & 4356 \\
\hline 34. & 50 & 2500 \\
\hline 35. & 70 & 4900 \\
\hline 36. & 60 & 3600 \\
\hline 37. & 80 & 6400 \\
\hline 38. & 70 & 4900 \\
\hline 39. & 80 & 6400 \\
\hline 40. & 70 & 4900 \\
\hline 41. & 60 & 3600 \\
\hline 42. & 66 & 4356 \\
\hline 43. & 70 & 4900 \\
\hline 44. & 74 & 5476 \\
\hline Total & \(\mathbf{1 4 7 2}\) & \(\mathbf{9 9 8 0 8}\) \\
\hline & & \\
\hline
\end{tabular}
n \(=22\)
\(\sum x i=1472\)
\(\sum_{x i} 2=99808\)
So:
\[
\begin{aligned}
S^{2} & = \\
& =\frac{22(\text { EMBED Equation. } 3\}}{22(22-147)^{2}} \\
& =\frac{2195776-2166784}{22(21)} \\
& =\frac{28992}{462} \\
& =62.75
\end{aligned}
\]

The formula was used to test hypothesis was :
2. VII-8 and VII-10.
\[
\mathrm{F}=\frac{\text { The Biggest Variant }}{\text { The Smallest Variant }}
\]

So:
\[
\begin{aligned}
\mathrm{F} & =\frac{63.76}{62.75} \\
& =1.01
\end{aligned}
\]

After doing the calculation, researcher found that \(F_{\text {count }}=1.01\) with \(\{\) EMBED Equation. 3\(\}^{5 \%}\) and \(\mathrm{dk}=21\) and 21 from the distribution list F , researcher found that \(\mathrm{F}_{\text {table }}=2.02\), cause \(\mathrm{F}_{\text {count }}<\mathrm{F}_{\text {table }}(1.01<2.02)\). So, there is no difference in variant between the VII-8class and VII-10 class. It means that the variant is homogenous.

\section*{Appendix XXV}

The formula was used to analyze homogeneity test of the both averages was t -test, that:

So:
\[
\begin{aligned}
& T t=\frac{M_{1}-M_{2}}{\sqrt{\left(\frac{\left(n_{1}-1\right) s_{1}^{2}+\left(n_{2}-1\right) s_{2}^{2}}{n_{1}+n_{2}-2}\right)\left(\frac{1}{n_{1}}+\frac{1}{n_{2}}\right)}} \\
& T t=\frac{58.05-56.3}{\sqrt{\left(\frac{(22-1) 148.77+(22-1) 145.63}{22+22-2}\right)\left(\frac{1}{22}+\frac{1}{22}\right)}}
\end{aligned}
\]
\[
T t=\frac{1.75}{\sqrt{\left(\frac{21(148.77)+21(145.63)}{42}\right)(0.045+0.045)}}
\]
\[
T t=\frac{1.75}{\sqrt{\left(\frac{3124.17+3058.23}{42}\right)(0.09)}}
\]
\[
T t=\frac{1.75}{\sqrt{\left(\frac{6182.4}{42}\right)(0.09)}}
\]
\[
T t=\frac{1.75}{\sqrt{(147.2)(0.09)}}
\]
\[
T t=\frac{1.75}{\sqrt{13.24}}
\]
\[
T t=\frac{1.75}{3.63}
\]
\[
T t=0.482
\]

Based on researcher calculation result of the homogeneity test of the both averages, researcher found that \(t_{\text {count }}=0.482\) with opportunity \((1-\{\) EMBED Equation. 3 \}) \(=1-5 \%=95 \%\) and \(d k=n_{1}+n_{2}-2=22+22-2=42\), reseracher found that \(\mathrm{t}_{\text {table }}=2.021\), because \(\mathrm{t}_{\text {count }}<\mathrm{t}_{\text {table }}(0.482<2.021)\). So, \(\mathrm{H}_{\mathrm{a}}\) was rejected, it
means that there is no difference in average between experimental class and control class in pre test.

\section*{Appendix XXVI}

\section*{\(T_{\text {test }}\) OF THE BOTH AVERAGES IN POST - TEST}

The formula was used to analyse homogeneity test of the both averages in post test was t -test, as below:
\[
\begin{aligned}
& T t=\frac{M_{1}-M_{2}}{\sqrt{\left(\frac{\left(n_{1}-1\right) s_{1}^{2}+\left(n_{2}-1\right) s_{2}^{2}}{n_{1}+n_{2}-2}\right)\left(\frac{1}{n_{1}}+\frac{1}{n_{2}}\right)}} \\
& T t=\frac{84.59-73.74}{\sqrt{\left(\frac{(22-1) 63.76+(22-1) 62.75}{22+22-2}\right)\left(\frac{1}{22}+\frac{1}{22}\right)}} \\
& T t=\frac{10.85}{\sqrt{\left(\frac{21(1338.96)+21(1317.75)}{42}\right)(0.045+0.045)}} \\
& T t=\frac{10.85}{\sqrt{\left(\frac{1338.96+1317.75}{42}\right)(0.09)}} \\
& T t=\frac{10.85}{\sqrt{\left(\frac{2656.71}{42}\right)(0.09)}} \\
& T t=\frac{10.85}{\sqrt{(63.25)(0.09)}} \\
& T t=\frac{10.85}{\sqrt{5.692}} \\
& T t=\frac{10.85}{2.385} \\
& T t=4.549
\end{aligned}
\]

Based on calculation above, the result of the homogeneity test of the both averages, it was found that \(\mathrm{t}_{\text {count }}=4.55\) with opportunity ( \(1-\{\) EMBED Equation. 3\(\}\) ) \(=1-5 \%=95 \%\) and \(d k=n_{1}+n_{2}-2=22+22-2=42\), reseracher found that \(\mathrm{t}_{\text {table }}=2.021\), cause \(\mathrm{t}_{\text {count }}>\mathrm{t}_{\text {table }}(4.55>2.021)\). It means that \(\mathrm{H}_{\mathrm{a}}\) was accepted, it means there was the difference average between experimental class and control class in post test. it can be concluded that there was the sifnificant
effect of Teams Games Tournaments (TGT) Method on students' vocabulary mastery at the seventh grade of SMP N 5 Padangsidimpuan.

\section*{Appendix XXVII}

Chi-Square Table
\begin{tabular}{|l|c|c|c|c|c|c|}
\hline \multirow{2}{*}{\(\mathbf{d k}\)} & \multicolumn{6}{|c|}{ Significant level } \\
\cline { 2 - 7 } & \(\mathbf{5 0 \%}\) & \(\mathbf{3 0 \%}\) & \(\mathbf{2 0 \%}\) & \(\mathbf{1 0 \%}\) & \(\mathbf{5 \%}\) & \(\mathbf{1 \%}\) \\
\hline \(\mathbf{1}\) & 0,455 & 1,074 & 1,642 & 2,706 & 3,841 & 6,635 \\
\hline \(\mathbf{2}\) & 1,386 & 2,408 & 3,219 & 4,605 & 5,991 & 9,210 \\
\hline \(\mathbf{3}\) & 2,366 & 3,665 & 4,642 & 6,251 & 7,815 & 11,341 \\
\hline \(\mathbf{4}\) & 3,357 & 4,878 & 5,989 & 7,779 & 9,488 & 13,277 \\
\hline \(\mathbf{5}\) & 4,351 & 6,064 & 7,289 & 9,236 & \(\mathbf{1 1 , 0 7 0}\) & 15,086 \\
\hline \(\mathbf{6}\) & 5,348 & 7,231 & 8,558 & 10,645 & 12,592 & 16,812 \\
\hline \(\mathbf{7}\) & 6,346 & 8,383 & 9,803 & 12,017 & 14,067 & 18,475 \\
\hline \(\mathbf{8}\) & 7,344 & 9,524 & 11,030 & 13,362 & 15,507 & 20,090 \\
\hline \(\mathbf{9}\) & 8,343 & 10,656 & 12,242 & 14,684 & 16,919 & 21,666 \\
\hline \(\mathbf{1 0}\) & 9,342 & 11,781 & 13,442 & 15,987 & 18,307 & 23,209 \\
\hline \(\mathbf{1 1}\) & 10,341 & 12,899 & 14,631 & 17,275 & 19,675 & 24,725 \\
\hline \(\mathbf{1 2}\) & 11,340 & 14,011 & 15,812 & 18,549 & 21,026 & 26,217 \\
\hline \(\mathbf{1 3}\) & 12,340 & 15,119 & 16,985 & 19,812 & 22,362 & 27,688 \\
\hline \(\mathbf{1 4}\) & 13,339 & 16,222 & 18,151 & 21,064 & 23,685 & 29,141 \\
\hline \(\mathbf{1 5}\) & 14,339 & 17,222 & 19,311 & 22,307 & 24,996 & 30,578 \\
\hline \(\mathbf{1 6}\) & 15,338 & 18,418 & 20,465 & 23,542 & 26,296 & 32,000 \\
\hline \(\mathbf{1 7}\) & 16,338 & 19,511 & 21,615 & 24,769 & 27,587 & 33,409 \\
\hline \(\mathbf{1 8}\) & 17,338 & 20,601 & 22,760 & 25,989 & 28,869 & 34,805 \\
\hline \(\mathbf{1 9}\) & 18,338 & 21,689 & 23,900 & 27,204 & 30,144 & 36,191 \\
\hline \(\mathbf{2 0}\) & 19,337 & 22,775 & 25,038 & 28,412 & 31,410 & 37,566 \\
\hline \(\mathbf{2 1}\) & 20,337 & 23,858 & 26,171 & 29,615 & 32,671 & 38,932 \\
\hline \(\mathbf{2 2}\) & 21,337 & 24,939 & 27,301 & 30,813 & 33,924 & 40,289 \\
\hline \(\mathbf{2 3}\) & 22,337 & 26.018 & 28,429 & 32,007 & 35,172 & 41,638 \\
\hline \(\mathbf{2 4}\) & 23,337 & 27,096 & 29,553 & 33,196 & 35,415 & 42,980 \\
\hline \(\mathbf{2 5}\) & 24,337 & 28,172 & 30,675 & 34,382 & 37,652 & 44,314 \\
\hline \(\mathbf{2 6}\) & 25,336 & 29,246 & 31,795 & 35,563 & 38,885 & 45,642 \\
\hline \(\mathbf{2 7}\) & 26,336 & 30,319 & 32,912 & 36,741 & 40,113 & 46,963 \\
\hline \(\mathbf{2 8}\) & 27,336 & 31,391 & 34,027 & 37,916 & 41,337 & 48,278 \\
\hline \(\mathbf{2 9}\) & 28,336 & 32,461 & 35,139 & 39,087 & 42,557 & 49,588 \\
\hline \(\mathbf{3 0}\) & 29,336 & 33,530 & 36,250 & 40,256 & 43,773 & 50,892 \\
\hline & & & & & & \\
\hline
\end{tabular}

\section*{APPENDIX XXVIII}

Z-Table
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \(\mathbf{Z}\) & \(\mathbf{0 . 0 0}\) & \(\mathbf{0 . 0 1}\) & \(\mathbf{0 . 0 2}\) & \(\mathbf{0 . 0 3}\) & \(\mathbf{0 . 0 4}\) & \(\mathbf{0 . 0 5}\) & \(\mathbf{0 . 0 6}\) & \(\mathbf{0 . 0 7}\) & \(\mathbf{0 . 0 8}\) & \(\mathbf{0 . 0 9}\) \\
\hline - & & & & & & & & & & \\
3. & 0.0000 & 0.0000 & 0.0000 & 0.0000 & 0.0000 & 0.0000 & 0.0000 & 0.0000 & 0.0000 & 0.0000 \\
9 & 5 & 5 & 4 & 4 & 4 & 4 & 4 & 4 & 3 & 3 \\
\hline - & & 0.0000 & 0.0000 & 0.0000 & 0.0000 & 0.0000 & 0.0000 & 0.0000 & 0.0000 & 0.0000 \\
8 & 7 & 7 & 7 & 6 & 6 & 6 & 6 & 5 & 5 & 5 \\
\hline 3. & 0.0001 & 0.0001 & 0.0001 & 0.0001 & 0.0000 & 0.0000 & 0.0000 & 0.0000 & 0.0000 & 0.0000 \\
7 & 1 & 0 & 0 & 0 & 9 & 9 & 8 & 8 & 8 & 8 \\
\hline 3. & 0.0001 & 0.0001 & 0.0001 & 0.0001 & 0.0001 & 0.0001 & 0.0001 & 0.0001 & 0.0001 & 0.0001 \\
\hline 3. & 9 & 6 & 4 & 2 & 0 & 8 & 6 & 4 & 2 & 0 \\
\hline 3 & 6 & 5 & 5 & 4 & 4 & 3 & 3 & 2 & 2 & 1 \\
\hline 3. & 0.0006 & 0.0006 & 0.0006 & 0.0006 & 0.0006 & 0.0005 & 0.0005 & 0.0005 & 0.0005 & 0.0005 \\
\hline 3. & 0.0003 & 0.0003 & 0.0003 & 0.0003 & 0.0002 & 0.0002 & 0.0002 & 0.0002 & 0.0002 & 0.0002 \\
\hline 4 & 4 & 2 & 1 & 0 & 9 & 8 & 7 & 6 & 5 & 4 \\
\hline 5 & 0.0002 & 0.0002 & 0.0002 & 0.0002 & 0.0002 & 0.0001 & 0.0001 & 0.0001 & 0.0001 & 0.0001 \\
\hline - & & 2 & 2 & 1 & 0 & 9 & 9 & 8 & 7 & 7 \\
\hline & & & & & & & & & & \\
\hline
\end{tabular}



\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline 5 & & & & & & & & & & \\
\hline - & & & & & & & & & & \\
\hline 0. & 0.3445 & 0.3409 & 0.3372 & 0.3336 & 0.3299 & 0.3263 & 0.3227 & 0.3191 & 0.3156 & 0.3120 \\
\hline 4 & 8 & 0 & 4 & 0 & 7 & 6 & 6 & 8 & 1 & 7 \\
\hline - & & & & & & & & & & \\
\hline 0. & 0.3820 & 0.3782 & 0.3744 & 0.3707 & 0.3669 & 0.3631 & 0.3594 & 0.3556 & 0.3519 & 0.3482 \\
\hline 3 & 9 & 8 & 8 & 0 & 3 & 7 & 2 & 9 & 7 & 7 \\
\hline - & & & & & & & & & & \\
\hline 0. & 0.4207 & 0.4168 & 0.4129 & 0.4090 & 0.4051 & 0.4012 & 0.3974 & 0.3935 & 0.3897 & 0.3859 \\
\hline 2 & 4 & 3 & 4 & 5 & 7 & 9 & 3 & 8 & 4 & 1 \\
\hline - & & & & & & & & & & \\
\hline 0. & 0.4601 & 0.4562 & 0.4522 & 0.4482 & 0.4443 & 0.4403 & 0.4364 & 0.4325 & 0.4285 & 0.4246 \\
\hline 1 & 7 & 0 & 4 & 8 & 3 & 8 & 4 & 1 & 8 & 5 \\
\hline - & & & & & & & & & & \\
\hline 0. & 0.5000 & 0.4960 & 0.4920 & 0.4880 & 0.4840 & 0.4800 & 0.4760 & 0.4721 & 0.4681 & 0.4641 \\
\hline 0 & 0 & 1 & 2 & 3 & 5 & 6 & 8 & 0 & 2 & 4 \\
\hline
\end{tabular}

\section*{Z-Table}
\begin{tabular}{||c|c|c|c|c|c|c|c|c|c|c||}
\hline \hline \(\mathbf{z}\) & \(\mathbf{0 . 0 0}\) & \(\mathbf{0 . 0 1}\) & \(\mathbf{0 . 0 2}\) & \(\mathbf{0 . 0 3}\) & \(\mathbf{0 . 0 4}\) & \(\mathbf{0 . 0 5}\) & \(\mathbf{0 . 0 6}\) & \(\mathbf{0 . 0 7}\) & \(\mathbf{0 . 0 8}\) & \(\mathbf{0 . 0 9}\) \\
\hline \(\mathbf{0 . 0}\) & 0.0000 & 0.0040 & 0.0080 & 0.0120 & 0.0160 & 0.0199 & 0.0239 & 0.0279 & 0.0319 & 0.0359 \\
\hline
\end{tabular}
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline 0.1 & 0.0398 & 0.0438 & 0.0478 & 0.0517 & 0.0557 & 0.0596 & 0.0636 & 0.0675 & 0.0714 & 0.0753 \\
\hline 0.2 & 0.0793 & 0.0832 & 0.0871 & 0.0910 & 0.0948 & 0.0987 & 0.1026 & 0.1064 & 0.1103 & 0.1141 \\
\hline 0.3 & 0.1179 & 0.1217 & 0.1255 & 0.1293 & 0.1331 & 0.1368 & 0.1406 & 0.1443 & 0.1480 & 0.1517 \\
\hline 0.4 & 0.1554 & 0.1591 & 0.1628 & 0.1664 & 0.1700 & 0.1736 & 0.1772 & 0.1808 & 0.1844 & 0.1879 \\
\hline 0.5 & 0.1915 & 0.1950 & 0.1985 & 0.2019 & 0.2054 & 0.2088 & 0.2123 & 0.2157 & 0.2190 & 0.2224 \\
\hline 0.6 & 0.2257 & 0.2291 & 0.2324 & 0.2357 & 0.2389 & 0.2422 & 0.2454 & 0.2486 & 0.2517 & 0.2549 \\
\hline 0.7 & 0.2580 & 0.2611 & 0.2642 & 0.2673 & 0.2704 & 0.2734 & 0.2764 & 0.2794 & 0.2823 & 0.2852 \\
\hline 0.8 & 0.2881 & 0.2910 & 0.2939 & 0.2967 & 0.2995 & 0.3023 & 0.3051 & 0.3078 & 0.3106 & 0.3133 \\
\hline 0.9 & 0.3159 & 0.3186 & 0.3212 & 0.3238 & 0.3264 & 0.3289 & 0.3315 & 0.3340 & 0.3365 & 0.3389 \\
\hline 1.0 & 0.3413 & 0.3438 & 0.3461 & 0.3485 & 0.3508 & 0.3531 & 0.3554 & 0.3577 & 0.3599 & 0.3621 \\
\hline 1.1 & 0.3643 & 0.3665 & 0.3686 & 0.3708 & 0.3729 & 0.3749 & 0.3770 & 0.3790 & 0.3810 & 0.3830 \\
\hline 1.2 & 0.3849 & 0.3869 & 0.3888 & 0.3907 & 0.3925 & 0.3944 & 0.3962 & 0.3980 & 0.3997 & 0.4015 \\
\hline 1.3 & 0.4032 & 0.4049 & 0.4066 & 0.4082 & 0.4099 & 0.4115 & 0.4131 & 0.4147 & 0.4162 & 0.4177 \\
\hline 1.4 & 0.4192 & 0.4207 & 0.4222 & 0.4236 & 0.4251 & 0.4265 & 0.4279 & 0.4292 & 0.4306 & 0.4319 \\
\hline 1.5 & 0.4332 & 0.4345 & 0.4357 & 0.4370 & 0.4382 & 0.4394 & 0.4406 & 0.4418 & 0.4429 & 0.4441 \\
\hline 1.6 & 0.4452 & 0.4463 & 0.4474 & 0.4484 & 0.4495 & 0.4505 & 0.4515 & 0.4525 & 0.4535 & 0.4545 \\
\hline 1.7 & 0.4554 & 0.4564 & 0.4573 & 0.4582 & 0.4591 & 0.4599 & 0.4608 & 0.4616 & 0.4625 & 0.4633 \\
\hline 1.8 & 0.4641 & 0.4649 & 0.4656 & 0.4664 & 0.4671 & 0.4678 & 0.4686 & 0.4693 & 0.4699 & 0.4706 \\
\hline 1.9 & 0.4713 & 0.4719 & 0.4726 & 0.4732 & 0.4738 & 0.4744 & 0.4750 & 0.4756 & 0.4761 & 0.4767 \\
\hline 2.0 & 0.4772 & 0.4778 & 0.4783 & 0.4788 & 0.4793 & 0.4798 & 0.4803 & 0.4808 & 0.4812 & 0.4817 \\
\hline 2.1 & 0.4821 & 0.4826 & 0.4830 & 0.4834 & 0.4838 & 0.4842 & 0.4846 & 0.4850 & 0.4854 & 0.4857 \\
\hline 2.2 & 0.4861 & 0.4864 & 0.4868 & 0.4871 & 0.4875 & 0.4878 & 0.4881 & 0.4884 & 0.4887 & 0.4890 \\
\hline 2.3 & 0.4893 & 0.4896 & 0.4898 & 0.4901 & 0.4904 & 0.4906 & 0.4909 & 0.4911 & 0.4913 & 0.4916 \\
\hline 2.4 & 0.4918 & 0.4920 & 0.4922 & 0.4925 & 0.4927 & 0.4929 & 0.4931 & 0.4932 & 0.4934 & 0.4936 \\
\hline 2.5 & 0.4938 & 0.4940 & 0.4941 & 0.4943 & 0.4945 & 0.4946 & 0.4948 & 0.4949 & 0.4951 & 0.4952 \\
\hline 2.6 & 0.4953 & 0.4955 & 0.4956 & 0.4957 & 0.4959 & 0.4960 & 0.4961 & 0.4962 & 0.4963 & 0.4964 \\
\hline 2.7 & 0.4965 & 0.4966 & 0.4967 & 0.4968 & 0.4969 & 0.4970 & 0.4971 & 0.4972 & 0.4973 & 0.4974 \\
\hline 2.8 & 0.4974 & 0.4975 & 0.4976 & 0.4977 & 0.4977 & 0.4978 & 0.4979 & 0.4979 & 0.4980 & 0.4981 \\
\hline
\end{tabular}
\begin{tabular}{||l|l|l|l|l|l|l|l|l|l|l||}
\hline \(\mathbf{2 . 9}\) & 0.4981 & 0.4982 & 0.4982 & 0.4983 & 0.4984 & 0.4984 & 0.4985 & 0.4985 & 0.4986 & 0.4986 \\
\hline \(\mathbf{3 . 0}\) & 0,4987 & 0,4987 & 0.4987 & 0.4988 & 0.4988 & 0.4989 & 0.4989 & 0.4989 & 0.4990 & 0.4990 \\
\hline \(\mathbf{3 , 1}\) & 0,4990 & 0,4991 & 0,4991 & 0.4991 & 0,4992 & 0,4992 & 0,4992 & 0,4992 & 0,4993 & 0,4993 \\
\hline \(\mathbf{3 , 2}\) & 0,4993 & 0,4993 & 0,4994 & 0,4994 & 0,4994 & 0,4994 & 0,4994 & 0,4995 & 0,4995 & 0,4995 \\
\hline \(\mathbf{3 , 3}\) & 0,4995 & 0,4995 & 0,4995 & 0,4996 & 0,4996 & 0,4996 & 0,4996 & 0,4996 & 0,4997 & 0,4997 \\
\hline \(\mathbf{3 , 4}\) & 0,4997 & 0,4997 & 0,4997 & 0,4997 & 0,4997 & 0,4997 & 0,4997 & 0,4997 & 0,4997 & 0,4998 \\
\hline \(\mathbf{3 , 5}\) & 0,4998 & 0,4998 & 0,4998 & 0,4998 & 0,4998 & 0,4998 & 0,4998 & 0,4998 & 0,4998 & 0,4998 \\
\hline \(\mathbf{3 , 6}\) & 0,4998 & 0,4998 & 0,4999 & 0,4999 & 0,4999 & 0,4999 & 0,4999 & 0,4999 & 0,4999 & 0,4999 \\
\hline \(\mathbf{3 , 7}\) & 0,4999 & 0,4999 & 0,4999 & 0,4999 & 0,4999 & 0,4999 & 0,4999 & 0,4999 & 0,4999 & 0,4999 \\
\hline \(\mathbf{3 , 8}\) & 0,4999 & 0,4999 & 0,4999 & 0,4999 & 0,4999 & 0,4999 & 0,4999 & 0,4999 & 0,4999 & 0,4999 \\
\hline \(\mathbf{3 , 9}\) & 0,5000 & 0,5000 & 0,5000 & 0,5000 & 0,5000 & 0,5000 & 0,5000 & 0,5000 & 0,5000 & 0,5000 \\
\hline
\end{tabular}

\section*{APPENDIX XXIX}

Percentage Points of the \(t\) Distribution
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multicolumn{8}{|c|}{ Two Tail Test } \\
\hline & \(\mathbf{0 , 5 0}\) & \(\mathbf{0 , 2 0}\) & \(\mathbf{0 , 1 0}\) & \(\mathbf{0 , 0 5}\) & \(\mathbf{0 , 0 2}\) & \(\mathbf{0 , 0 1}\) \\
\hline \multicolumn{8}{|c|}{ One Tail Test } \\
\hline \(\mathbf{d k}\) & \(\mathbf{0 , 2 5}\) & \(\mathbf{0 , 1 0}\) & \(\mathbf{0 , 0 0 5}\) & \(\mathbf{0 , 0 2 5}\) & \(\mathbf{0 , 0 1}\) & \(\mathbf{0 , 0 5}\) \\
\hline \(\mathbf{1}\) & 1,000 & 3,078 & 6,314 & 12,706 & 31,821 & 63,657 \\
\(\mathbf{2}\) & 0,816 & 1,886 & 2,920 & 4,303 & 6,965 & 9,925 \\
\hline
\end{tabular}
\begin{tabular}{|c|l|l|l|l|l|l|}
\hline \(\mathbf{3}\) & 0,765 & 1,638 & 2,353 & 3,182 & 4,541 & 5,841 \\
\(\mathbf{4}\) & 0,741 & 1,533 & 2,132 & 2,776 & 3,747 & 4,604 \\
\(\mathbf{5}\) & 0,721 & 1,486 & 2,015 & 2,571 & 3,365 & 4,032 \\
\(\mathbf{6}\) & 0,718 & 1,440 & 1,943 & 2,447 & 3,143 & 3,707 \\
\(\mathbf{7}\) & 0,711 & 1,415 & 1,895 & 2,365 & 2,998 & 3,499 \\
\(\mathbf{8}\) & 0,706 & 1,397 & 1,860 & 2,306 & 2,896 & 3,355 \\
\(\mathbf{9}\) & 0,703 & 1,383 & 1,833 & 2,262 & 2,821 & 3,250 \\
\(\mathbf{1 0}\) & 0,700 & 1,372 & 1,812 & 2,228 & 2,764 & 3,165 \\
\(\mathbf{1 1}\) & 0,697 & 1,363 & 1,796 & 2,201 & 2,718 & 3,106 \\
\(\mathbf{1 2}\) & 0,695 & 1,356 & 1,782 & 2,178 & 2,681 & 3.055 \\
\(\mathbf{1 3}\) & 0,692 & 1,350 & 1,771 & 2,160 & 2,650 & 3.012 \\
\(\mathbf{1 4}\) & 0,691 & 1,345 & 1,761 & 2,145 & 2,624 & 2,977 \\
\(\mathbf{1 5}\) & 0,690 & 1,341 & 1,753 & 2,132 & 2,623 & 2,947 \\
\(\mathbf{1 6}\) & 0,689 & 1,337 & 1,746 & 2,120 & 2,583 & 2,921 \\
\(\mathbf{1 7}\) & 0,688 & 1,333 & 1,743 & 2,110 & 2,567 & 2,898 \\
\(\mathbf{1 8}\) & 0,688 & 1,330 & 1,740 & 2,101 & 2,552 & 2,878 \\
\(\mathbf{1 9}\) & 0,687 & 1,328 & 1,729 & 2,093 & 2,539 & 2,861 \\
\(\mathbf{2 0}\) & 0,687 & 1,325 & 1,725 & 2,086 & 2,528 & 2,845 \\
\(\mathbf{2 1}\) & 0,686 & 1,323 & 1,721 & 2,080 & 2,518 & 2,831 \\
\(\mathbf{2 2}\) & 0,686 & 1,321 & 1,717 & 2,074 & 2,508 & 2,819 \\
\(\mathbf{2 3}\) & 0,685 & 1,319 & 1,714 & 2,069 & 2,500 & 2,807 \\
\(\mathbf{2 4}\) & 0,685 & 1,318 & 1,711 & 2,064 & 2,492 & 2,797 \\
\(\mathbf{2 5}\) & 0,684 & 1,316 & 1,708 & 2,060 & 2,485 & 2,787 \\
\(\mathbf{2 6}\) & 0,684 & 1,315 & 1,706 & 2,056 & 2,479 & 2,779 \\
\(\mathbf{2 7}\) & 0,684 & 1,314 & 1,703 & 2,052 & 2,473 & 2,771 \\
\(\mathbf{2 8}\) & 0,683 & 1,313 & 1,701 & 2,048 & 2,467 & 2,763 \\
\(\mathbf{2 9}\) & 0,683 & 1,311 & 1,699 & 2,045 & 2,462 & 2,756 \\
\(\mathbf{3 0}\) & 0,683 & 1,310 & 1,697 & 2,042 & 2,457 & 2,750 \\
\(\mathbf{4 0}\) & 0,681 & 1,303 & 1,684 & \(\mathbf{2 , 0 2 1}\) & 2,423 & 2,704 \\
\(\mathbf{6 0}\) & 0,679 & 1,296 & 1,671 & 2,000 & 2,390 & 2,660 \\
\(\mathbf{1 2 0}\) & 0,677 & 1,289 & 1,658 & 1,980 & 2,358 & 2,617 \\
\(\infty\) & 0,674 & 1,282 & 1,645 & 1,960 & 2,326 & 2,576 \\
\hline
\end{tabular}

\section*{DOKUMENTASI RISET}



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