

ABSTRACT

Lestari, Fitria Puji. 2015. The Effectiveness of Small Group Technique in Teaching Reading at The Eighth Grade Students of MTs Miftahul Ulum Balong in Academic Year 2014/2015. Thesis, English Education Department, Tarbiyah Faculty, State Islamic College of Ponorogo (STAIN), Ponorogo, Advisor Dr. Harjali, M.Pd.

Key word: The Effectiveness, Small Group Technique, Teaching Reading

Reading is one of receptive skills in which the students are asked to read and understand a text. It means the students must understand well about the text. If they understand a text, the information can be got easily. Reading also must be mastered by the students early. If the students do not learn to read early, they will difficult to receive knowledge well. Small group technique is one of cooperative learning where the students work effectively with each other to comprehend a text in getting meaning together. The purpose of this research is to know the significant difference on students' achievement that are taught by using small group technique and without small group technique at the eighth grade students of MTs Miftahul Ulum Balong in academic year 2014/2015.

The design of this research was quasi-experimental research for finding effectiveness of small group technique in teaching reading at the eighth grade students of MTs Miftahul Ulum Balong in academic year 2014/2015. The population in this research is 87 that were carried at the April 2015. This research assigned two classes, they are 27 students of VIII^B as an experiment class which taught by small group technique and 27 students of VIII^C as control class which is who are not taught by small group technique. The researcher used random sampling as sampling technique. Then the technique of data collection was test and documentation. The researcher used the "t" test formula as procedure of data analysis.

The result of this research showed that, the average of the post test from experiment class which has been taught by small group technique is 77,11. The result after treatment showed that $t_o = 3,74$. After being consulted with 5% significance level with $db = 52$, that is $t_t = 2,01$, so, $t_o (3,74) > t_t (2,01)$, so, H_a is accepted and H_o is refused. From the result analysis above showed that small group technique is effective for teaching reading at the eighth grade students of MTs Miftahul Ulum Balong in academic year 2014/2015.

CHAPTER I

INTRODUCTION

A. Background of The Study

In practicing English language especially in reading is a psycholinguistic process which is situated in a social context.¹ It means that is not just use language but also thinking, in a particular culture. When students develop as readers they not only gain access to the English medium school curriculum, but also to a range of aesthetic and cultural experiences.²

In order to help students to read, we need to understand the ways in which reading is used in our society. Another it we must have knowledge about language for understanding of the reading process. We may respond to the text such as accepting, appreciating, or questioning what the writer says. Reading involves an interaction between the reader and the writer and produce meaning from this interaction. So, through reading the readers can get what's they want to know.

Reading must be started early, because with reading the readers can be familiar with sound, letter, and word or sentence. According to Moats remarks "that reading is the fundamental skill upon which all formal education depends. Research now shows that a child who does not

¹Sally Ann. J , David Deterding, Phonics and Beginning Reading. (Singapore: Mc Graw Hill, 2007) 6.

²Ibid, 6.

learn the reading basics early is unlikely to learn them at all. Any child who does not learn to read early and well will not easily master other skills and knowledge, and is unlikely to ever flourish in school or in life”.³ Based on that statement, researcher thinks that reading is very important to have learned by student early. Reading also as the first skill must be mastered by the student before mastered the other skills as listening, speaking, and writing. So, if the students does not learn to read early, they will difficult to receive knowledge well. They will feel confused and can not grow well in their life.

Reading is one of receptive skills in which the students are asked to read and understand a text.⁴ It means the students must understand well about the text. If we master reading skill, we can easy to get information and tell something to other. Thus, reading is our experience which related with mind or brain to get meaning of the text. When we read, we will do something with what we have read.

We can also write a report based on information we have collected through reading. We will simply read to receive pleasure. No matter outcome, we should remember that there is a reason why we are reading.⁵ We can say that reading can be the fun activity, because we do not only get happiness but also many information and knowledge.

³Peter Westwood, What Teachers Need to Know About Reading and Writing Difficulties. (Australia: Acer Press, 2008), 2.

⁴McGraw Hill , Practical English Language Teaching: Reading. (New York; McGraw Hill Companies,2008), 2.

⁵Neil J. Anderson, David Nunan, Practical English Language Teaching: Reading. (New York: McGraw Hill, 2008),3.

In other reference the receptive written language skill's called reading. It is the skill of a reader or a group of reader to interpret information transferred by a writer. This skill is also realized by the ability of the readers to identify the rules of the language used by the writer to transfer the information.⁶ It means that the reader who has interpret all of information from the writer or can identify the language used by a writer, the reader can be said has skill. In teaching reading the teacher must has a special technique to make students more easy to catch the knowledge, for example with using cooperative learning.

Cooperative learning is the instructional use of small groups through which students work together to maximize their own and each other learning. There are many kinds of cooperative learning which can be used in teaching. The one of creative efforts is by using small group technique in teaching reading.

In cooperative learning group, the students must learn the task with their group to make cooperation each other in completing an assignment. The example of arena in the disciplined use of cooperative groups is teaching group members the small group and interpersonal skills they need to work effectively with each other.⁷ In small group processing members discuss how effectively they worked together and what could be

⁶SanggamSiahaan, *The English Paragraph*. (Yogyakarta: GrahaIlmu, 2008),3.

⁷David W. Johnson, Roger T. Johnson, *Learning Together and Alone: Cooperative, Competitive, and Individualistic Learning*. (USA: A Paramount Communications Company, 1994),90.

improved.⁸ These small group should be spaced in the classroom in such way as to maximize the distance between them.⁹ Small group instruction typically refers to a teacher working with a small group of students on a specific learning objective. These group consist of 2-4 students and provide those students with a reduced student- teacher ratio.¹⁰ A cooperative reading class is an example in which the students are working together in small groups to help each other in comprehending a text.

From those statement, the students work in a group, they think together to discuss the answer of the question and find the meaning or information from the writer through text with the members in their group.

Based on interview with Mrs. Dianing, the students find difficulties in learning English especially in reading. The fact was shown that there are a few of students capable to understand the concept if the text because they are not fluent to read and they feel difficult to find the meaning of the text. The other reason, the teacher teaches less interesting because the teaching technique is usual. From this case is needed a creative efforts to change the teaching technique from English teacher to make students understand easily. Such problem above, MTs Miftahul Ulum Balong has the same problem that's difficult in learning english, especially reading.

Based on the explanation above, the researcher tries to conduct the research was entitled: **“The Effectiveness of Small Group Technique in**

⁸Ibid, 117.

⁹Ibid, 102.

¹⁰<http://teaching.about.com/od/s-zteachingvocabulary/g/small-group-instruction.htm>. accessed on January, 21st 2015.

**Teaching Reading at The Eighth Grade Students of MTs Miftahul Ulum
Balong In Academic Year 2014/2015.”**

B. Limitation of The Problems

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

1. The subject of the study is at the eighth grade students of MTs Miftahul Ulum Balong in academic year 2014/2015.
2. The object of this study is the effectiveness of small group technique in teaching reading.

C. Statement of The Problem

1. Is there any significant difference on students' achievement who are taught by using small group technique and without small group technique at the eighth grade students of MTs Miftahul Ulum Balong in academic year 2014/2015?

D. Objective of The Study

1. To know the significant difference on students' achievement who are taught by using small group technique and without small group technique at the eighth grade students of MTs Miftahul Ulum Balong in academic year 2014/2015.

E. Significance of The Study

The researcher really hopes that the result of the research will be useful theoretically and practically.

1. Theoretically

After research, it is expected to give contribution of knowledge to develop the teaching and learning process especially in reading. This research is also expected to improve the perspective that reading is easy.

2. Practically

a. For teachers

It is expected to give useful contribution for teacher to help them in teaching, their student especially in developing reading skill. This is especially for English teacher of MTs Miftahul Ulum Balong in improving teaching skill by using small group technique, it also can motivate English teacher to be a professional teacher who is creative and innovative teacher.

b. For students

It is expected to be useful for students especially for the eighth grade students of MTs Miftahul Ulum Balong in academic year 2014/2015 who is attending reading class. It makes their study more active, enjoy, and it also can increase their reading skill.

c. For readers

It is expected to be useful for readers especially for the students of English Department of STAIN Ponorogo as a reference to use related technique for reading class.

F. Organization of Thesis

The researcher writes this thesis in five chapters, these related one to another. The organizations of the thesis are:

- I. It is general description and takes a role as basic of mindset for thesis. The first chapter consists of background of the study, limitation and statement of the problem, objective and signifacance of the study, and organization of the thesis.
- II. Review of related literature about reading, defition of reading, the components of reading, the purposes of reading, the approaches in authentic reading, models of reading, teaching reading, the principles for teaching reading, cooperative learning, technique, small group, the process of small group, the strength and weakness of small group. This chapter also contains previous research finding, theoretical framework, and hypothesis.
- III. Contains research methodology. The research methodology consists of research design, population, sample, instrument of data collection, technique of data collection, and technique of data analysis.
- IV. Stands of research result. It contains research location and time of the research, data description, data analysis and discussion.
- V. Closing. It contains of conclusion and suggestion.

CHAPTER II

REVIEW OF RELATED LITERATURE

A. Theoretical Background

1. Reading

a. Definition of Reading

Reading is very important for us because through reading we can know the information, even reading can open our knowledge. Another it, reading can train our brain to thinking try to analyze the text in order that to find the meaning. It is called the reading process.

Reading is a process of readers combining information from a text and their own background knowledge to build meaning.¹¹ In the same line mentioned that reading can be defined simply as making meaning from print.¹² Read is simply to pass one's eyes over the words as one does in reading story.¹³ Penny Ur also states, "Reading means reading and understanding".¹⁴ Here, can be said that reading is an activity to gain and to understand a new knowledge from the material.

¹¹Neil J. Anderson, David Nunan, *Practical English Language Teaching: Reading*. (New York: McGraw Hill, 2008), 2.

¹²Ibid, 2.

¹³Marilla Svinivki, Wilbert J. McKeachie, *McKeachie's Teaching Tips: STRATEGIES, research, and Theory for college and University Teachers*(USA: Wadsworth, Cengage Learning, 2006), 32.

¹⁴Penny Ur, *A Course in Language Teaching*. (New York: Cambridge, 1996), 138.

Reading is an interactive process. Lucantoni said that there must also be an interaction between the text and the reader.¹⁵ Reading is a form of communication between reader and the writer. In the reading process, the reader has to understand and catches the point of the text. At the same time, the writer tries to give understanding through the words. Understanding the written text means extracting the required information from it as efficiently as possible. Lucantoni stated, “Reading without being able to interpret the language would not result in comprehension”.¹⁶ Therefore, there is no meaning if a reader just reads without comprehending and catching the information.

The other definition is according to Moats remarks that “reading is the fundamental skill upon which all formal education depends. Research now shows that a child who does not learn the reading basics early is unlikely to learn them at all. Any child who does not learn to read early and well will not easily master other skills and knowledge, and is unlikely to ever flourish in school or in life”.¹⁷

Reading is related to the cognitive process. In this process, the readers must be active to use their mind to understand what they are read. They also try to solve the problem by their intelligence.

¹⁵ Peter Lucantoni, *Teaching and Assessing Skills in English as A Second Language*. (United Kingdom: Cambridge University Press, 2005), 29.

¹⁶ Ibid, 30.

¹⁷ Peter Westwood, *What Teachers Need to Know About Reading and Writing Difficulties*. (Australia: Acer Press, 2008), 2.

Besides that, reading is an active skill. In the reading process, the reader must be able in guessing, predicting, checking, and asking oneself some questions related to the text. A reader and the writer are the subjects in reading process. There is a connection between them. A writer tries to explain the reader about his or her idea and the reader tries to understand the meaning of the text.

From statements and explanation above, the researcher concludes that reading can be called combine the information from background knowledge to find the meaning also making meaning from the writer's said in the text. Reading also the process of constructing meaning through the dynamic interaction those are the reader's existing knowledge, the information suggested by the text being read, and the context of the reading situation. Researcher thinks that reading is very important to have learned by students early. Reading also as the first skill must be mastered by the students before mastered the other skills like listening, speaking, and writing. So, if the student does not learn to read early, they will difficult to receive knowledge well. They will feel confused and can not grow well in their life.

b. The Components of Reading

Reading has component to reach the successfully in reading activity. It can help students in their learning process. As Fielding

and Pearson states in particular, reading programs having the following four components can lead to student success, they are:

1) Extensive amounts of time in class for reading.

In reading activity, the students need a hard effort to catch the information. Therefore they need much time to read and understand the text carefully. Another it give the opportunity to the students in processing information. The students must know the vocabulary because without know it, they are not find the meaning or intention of the text. So, much time for reading class is needed.

2) Direct strategy instruction in reading comprehension.

The teacher gives direct instruction to the students in order that they can be guided for reading comprehension. The purpose of reading is to find information of the text. So, students focus in processing the meaning of text.

3) Opportunities for collaboration.

The teacher can make groups in students' reading activity. In group they can work together to collect information. It is called cooperative learning.

4) Opportunities for discussions on responses to reading.¹⁸

In group they can share their ideas and integrate the result of reading activity. They discuss the material and how they respond it. Thus, they can find the best meaning with their group.

c. The Purposes of Reading

Reading has purpose to find information or meaning from the text. The readers read the text with their background knowledge to find the meaning which they want to know. Reading has purpose to find information, such as material and meaning the written. There are:¹⁹

1. Reading to search for simple information
2. Reading to skim quickly
3. Reading to learn from texts
4. Reading to integrate information
5. Reading to write
6. Reading to criticize texts for general comprehension

In conclusion, reading has many purposes which must be known by the students in learning English to make their reading successfully.

¹⁸ J. Michael O' Malley, Lorraine Valdez Pierce, *Authentic Assessment for English Language Learners*, 95.

¹⁹William Grabe and Fredericka. Stoler, *Teaching and Researching Reading*.(London: Longman Inc, 2002), 9.

d. The Approaches in Authentic Reading

1. Reading in a Daily- Life Context

In our modern world, people use their reading skills constantly as they go about their daily activities. Our contemporary civilization requires that people be “functionally literate”, that is that they be able to read and interpret a wide variety of printed messages, ranging from signs and product names to menus, from bus schedules to movie announcements, from help- wanted to headlines, from printed instruction to notes or e-mail from colleagues or friends.

2. Reading for Information

In reading for information, the readers select what they are going to read on the basis of the specific questions they would like to have answered. The purpose is to expand their knowledge.²⁰ Here, the reader is motivated to get more information on a certain topic and thus searches out appropriate sources.

As the students read for information, they are actively looking for answers to previously established questions. Because the focus is on content, it is important that the reading material be accessible to the students.²¹ In conclusion, reading for information can help the students to get meaning from the

²⁰ Anthony Mollica, Teaching and Learning Languages. (SOLEIL publishing Inc), 368.

²¹ Ibid, 368.

source. By giving text and questions which contains information must be searched by students. Another it the students can learn through process reading to get information. In other hand, the students answer the questions.

3. Reading for Pleasure

In reading for pleasure, usually the people do in spare time or while waiting someone. In this activity, the reader can choose a magazine to be read. There are many kinds of magazine as sport magazine, fashion magazine, and science magazine etc. the reader can read all of them or one of them for their pleasure. The style and features of the articles in the magazine is typically straightforward and does not require reader interpretation. Any background information the reader might need is made explicit within the article itself. Typically readers select an article because they have some notion as to its content. Similarly, students who are reading for pleasure should be encouraged try to discover the content before they read it. Here, students do not need to understand every word, but they should have a fairly accurate notion of the basic content.

4. Participatory Reading

Participatory reading or serious reading is the acquisition of information or new knowledge. The fiction or non-fiction texts have been written so as to require the reader's personal

involvement. Frequently these readings assume certain background knowledge on the part of the readers, and then provide a new interpretation or an original view. Literary texts are meant not only to be read but also to be re-read. Frequently literary readings elicit a personal response on the part of the reader. Some students may even be inspired to create related texts of their own.

Based on explanation above, there are many kinds of approach in authentic reading. Start from reading daily activity, reading for information, reading for pleasure, and participatory reading have a different purpose. In this research, focuses on reading for information. Here, the students read the text to get information. In reading process, the students try to understand and catch meaning of text. There is a communication between the reader and writer through the text.

e. Models of Reading

1. Bottom – Up Model

Bottom-up models consist of lower-level reading processes. Students start with the fundamental basics of letter and sound recognition, which in turn allows them to move up to morpheme recognition followed by word recognition, building up to the identification of grammatical structures, sentences, and

longer texts.²² As with the bottom-up models, there are a number of variations in this approach, but basically all agree that the reader rather than the text is at the heart of the reading process.²³ From this statement, can be concluded that the students must start the study from the bottom such as study of sound or letter in order that to get the top that is comprehension. So, this model emphasized on mastery of sound, letters, and word firstly.

2. Top –Down Model

According to Grabe and Stoler point out that in top-down model of reading, comprehension is directed by the reader's goal and expectations.²⁴ Here, the reader start from top to the down and they are begin reading from their background knowledge. So, in top-down model focuses on meaning not mastery of bottom-up models (sound and letter).

3. Interactive Model

The approach that is accepted as the most comprehensive description of the reading process is an interactive approach. This model combines elements of both bottom-up and top-down approaches.²⁵ The readers must begin reading using top-down model then they change to bottom-up model. So, in interactive

²²Neil J. Anderson, David Nunan, Practical English Language Teaching: Reading. (New York: McGraw Hill, 2008), 5.

²³ David Nunan, Language Teaching Methodology. A Textbook for Teachers. (Prentice Hall International English Language Teaching), 65.

²⁴ Neil J. Anderson, David Nunan, Practical English Language Teaching: Reading. (New York: McGraw Hill, 2008), 6.

²⁵Ibid, 7

model, the learners must combine bottom-up model and top-down model.

2. Teaching Reading

a. Teaching Reading

Teaching reading means the act of guiding or instructing to create spoken work or anything expressed in orally. It is also student's activities which guides the students in their learning.

In teaching reading, the teacher has to provide students with reading skill. The reading skill is very useful for students. Reading is essential for students' careers either for study purposes or simply for pleasure. Teaching reading should pay attention to habitual ways of thinking and well organized. This is due to reading a very complex process, involving all the higher mental process, such as memory, thought, imagination, organization, implementation, and troubleshooting.²⁶

Reading is also useful as part of the process of language acquisition.²⁷ The good reader also needs to be familiar with the precise meaning of the particular grammatical devices used, structure words, word order, word forms and broad patterns of sentences.²⁸ It provides the students with opportunities to study language and its

²⁶ Iskandarwassid and Dadang Sunendar, Strategi Pembelajaran Bahasa. (Bandung: Remaja Rosdakarya, 2008), 246.

²⁷Jeremy Harmer, How to Teach English. (England: Pearson Education Limited, 1998), 68.

²⁸ Geoffrey Broughton et,al, Teaching English as a Foreign Language Second Edition.(London: University of London Institute of Education, 1980), 95.

vocabulary, grammar, punctuation, and the way they construct sentences, paragraphs, and texts. Teaching reading is difficult work. Teachers must be aware of the progress that students are making and adjusting instruction to changing abilities of students. It is also important to remember that the goal of reading is to understand the text and find the meaning of the text. In teaching reading the teacher and the learners must create a cooperation to get purpose of teaching reading. The teacher must make the students understand with the lesson. From this effort, it is hoped successful in teaching reading.

b. The Principles for Teaching Reading

There are eight principles for teaching reading, they are:²⁹

1. Exploit the reader's background knowledge

A reader's background knowledge can influence reading comprehension. Background knowledge includes all of the experiences that a reader brings to a text: life experiences, educational experiences, knowledge of how texts can be organized rhetorically, knowledge of how one's first language works, knowledge of how second language works, and cultural background and knowledge. So, the reader's background knowledge is important for learners to follow the learning process.

²⁹David Nunan, *Practical English Language Teaching*. (Singapore: McGraw Hill, 2003),74-77.

2. Build a strong vocabulary base

Recent research emphasized the importance of vocabulary to successful reading. As I have developed my own philosophy of the role of vocabulary in reading instruction, I have decided that basic vocabulary should be explicitly taught and L2 readers should be taught to use context to effectively guess the meanings of less frequent vocabulary. From that writer's explanation, vocabulary base must be mastered by the learners because it is the part to understand the text.

3. Teach for Comprehension

In many reading instruction programs, more emphasis and time may be placed on testing reading comprehension than on teaching readers how to comprehend. Monitoring comprehension is essential to successful reading. So, the teacher must has hard effort to teach the learners.

4. Work on increasing reading rate

One great difficulty in the second language reading classroom is that even when language learners can read, much of their reading is not fluent. Often, in our efforts to assist students in increasing their reading rate, teachers over emphasize accuracy which impedes fluency. So, the teacher must work hardly to find the balance in improving reading rate and developing reading comprehension skills.

5. Teach reading strategies

Strategies are “the tools for active”, self-directed involvement that is necessary for developing communicative ability. To achieve the desired results, students need to learn how to use a range of reading strategies that match their purposes for reading.

6. Encourage readers to transform strategies into skills

Strategies can be defined as conscious actions that learners take to achieve desired goals or objectives while a skill is a strategy that has become automatic. This characterization underscores the active role that readers play in strategic reading. As learners consciously learn and practice specific reading strategies, the strategies move from conscious to unconscious; from strategy to skill.

7. Build assessment and evaluation into your teaching

Assessing growth and development in reading skills from both a formal and informal perspective requires time and training. Here, the assessment will be included in the reading classroom.

8. Strive for continuous improvement as a reading teacher

The quality of the individual teacher is integral to success of second or foreign language readers. Reading teachers need to be passionate about their work. They should view themselves as facilitators, helping each reader discover what works best.

Integrating the key principles discussed above can lead to more effective reading instruction in the second language classroom.

3. Small Group Technique

a. Cooperative Learning

In cooperative learning, each student is required not only to complete their part of the work but also to ensure that others do likewise.³⁰ Cooperative learning is characterized by positive goal interdependence with individual accountability. The positive goal interdependence provides the students with a learning situation in which they work together.

The technical term for this dual responsibility is ‘positive interdependence’, and it is the most important element of cooperative learning. Positive interdependence exists when students perceive that they cannot succeed unless others do and they must learn to coordinate their efforts to ensure that this occurs.³¹

A cooperative reading class is an example in which the students are working together in small groups to help each other in comprehending a text. A student needs to be concerned with how he or she comprehends the text and how well the other students in his or her group comprehend the text.

³⁰ Routledge Falmer, *Cooperative Learning the Social and Intellectual Outcomes of Learning in Groups*, ed. Robyn. M .Gillies and Adrian. F. Ashman. (New York: Taylor and Francis Group, 2003), 37.

³¹ Ibid.

Cooperative learning implies working together to achieve common goals. In cooperative activity, the students individually seek a favorable outcome for all members of the group. Cooperative learning is the use of small group instruction that allows the students to work together to maximize their learning and studying others members of the group. In connection with this definition, Slavin said that “cooperative learning is a model of learning in which the students learn and work in small groups in a collaborative whose members consist of 4 to 6 students with a heterogeneous group structure. The success of learning in groups is depending on the capabilities and activities of group members either individually or in groups.”³²

The researcher concludes that cooperative learning means the students who are working together in a group. They can share their ideas in their group. In cooperative learning is needed creative effort from the students to make their learning successfully. Through small group they can work effectively with each other. They learn to interact appropriately with each other and they felt more supported in their effort and were more willing to work together on their problem-solving activities.

³² Etin Solihatin, Raharjo, Cooperative Learning. (Jakarta: Bumi Aksara, 2008),4.

b. Technique

In teaching learning, the teacher must have a skill when he or she teaches material to the students. Another it, the teacher can use technique, strategy, or method to make the students understand the material easily and the goal of teaching can be reached. According to KBBI, technique is systematic manner to do something. Technique also a trick, tactic or invention which used to finish and complete the direct objective.³³ Anthony in Brown, states that “Techniques are the specific activities manifested in the classroom, which are consistent with a method and therefore in harmony with an approach as well.³⁴ Technique is individual interactional activity as it occurs in the classroom. Here, the teacher teaches the students use teaching technique of themselves. That technique is chosen by a teacher feels are going to do the most good.

The researcher thinks that every technique has strength and weakness of each. Technique of teaching has an essential position in the teaching learning proces. It enables the teacher to transform subject matter to students easier. Technique is the way that is used by the teacher to communicate with their students during teaching learning process. The best teaching technique is techniques that increase students learning activity. So, the teacher must determines

³³Iskandar wassid, Dadang Sunendar, Strategi Pembelajaran Bahasa. (Bandung: PT Remaja Rosdakarya, 2008), 66.

³⁴Douglas H. Brown, Teaching by Principles. (California: Longman, 2000), 14.

the appropriate technique in order that the learning objective can be reached well.

c. Small Group

Small group work is recommended by virtually all recent handbooks and methodology texts for language teachers. The interest is justified, because the small group format is well suited to a range of activities from controlled precommunicative practice to decontrolled communicative activity.³⁵ Small group discussion and decision making activities are provided specific directions for discussion, may be the entire unit also contains a written reaction section, in which students record the conclusions of their discussion and do exercises related to the topic. The other activities, students are simply presented with information and instructed to list the reasons for and against doing the heart transplant. For lower-level students, small group discussion more narrowly focused on specific points of grammar and vocabulary can be devised.³⁶ Small group sometimes called cooperative learning needs students to work together to exchange ideas, make plans, propose solutions and work addresses both academic learning and social skill learning.

In general, it is possible to say that small group of around five students provoke greater involvement and participation than larger

³⁵Stephen J. Gaies, *Peer Involvement in Language Learning*. (USA : Prentice-Hall, 1985),37.

³⁶*Ibid*, 42.

groups.³⁷ Small group instruction “catch up” strategies that connect with ongoing classroom teaching and that offer opportunities for reading connected text.³⁸ Small group learning supports understanding, long-term retention of information, problem-solving skills, critical thinking, development of positive attitudes, and improves reflective practice. In other words, the teacher must give careful thought how to manage the classroom during small group to ensure success. Small group can help the student’s self-confidence be improved, good team work, and interpersonal communication developed well. Making a small group will give more responsibility. It means that the students are given the responsibility by the teacher using small group. As the result of this, each student has a responsibility to contribute to their group discussion and small group as a part of cooperative learning.

Based on explanation above, the researcher thinks that small group technique also has contribution in teaching reading through the text, because it can improve their focus in learning process. With small group the teacher can creates interpersonal communication and social skill learning.

d. Process of Small Group

The teacher must know the process how to make small group in the class. The process in making small group are; class is divided

117. ³⁷Jeremy Harmer, *The Practice of English Language Teaching*. (Longman: third edition),

³⁸Taylor et al.(2000), Alington (2001).

into groups, each group discuss the material, each group share or present the result of discussion, evaluation, and closing. Here, the teacher divides the students into groups, and then the teacher gives explanation which related to the topic and giving task for students in each group. The students can give their contribution to their groups. It means that there is communication to change information among other groups. After that, the teacher gives explanation about the material clearly, and then the teacher evaluates the students and the last is closing.

The steps of make small group are:³⁹

1. Make group consist of four heterogeneous students
2. Teacher gives material which related to the topic
3. The students work together in group to find the main idea and giving respond to the topic
4. The students present the result of discussion

In conclusion, the processes of small group are formation of group, discussing, reporting the result of discussion to big group and the last keeping the product of discussion.

e. The Strength and Weakness of Small Group

- **Strength**

The main advantages of small group learning are that it encourage active learning and develops communication and

³⁹ Nanang Hanafiah, Cucu Suhana, Konsep Strategi Pembelajaran. (Bandung: Refika Aditama, 2012), 51.

team work skills. Through small group, interpersonal communication and social skill learning of students can be created. Among the educational objective that can be best achieved through the use the small group teaching method are the development of higher level intellectual skills such as reasoning and problem solving, the development attitudes and the acquisition of interpersonal skills such as listening, speaking, arguing and group leadership.

Small groups encourage deeper level of learning compare with lecturer, as students are encourage to discuss and interpret meaning. So, using small group technique is benefit for teaching learning process.

- **Weakness**

Small group teaching can be resource intensive.⁴⁰ Using small group technique in teaching learning is also spends much time. Sometimes the students discuss the other topic and tend to crowded and dominant student.

The researcher thinks, every technique has strength and weakness, so, the teacher must adjusts with the material and how to apply it beautifully in learning process.

⁴⁰ Ingrid Tyler, An Environmental Scan of Best Practice in Public Health Undergraduate Medical Education. (Canada: AFMC, 2009), 4.

B. Previous Research Finding

There are some previous studies that are found by researcher. The first is by Buana Mustika Sari, the research title: The Effectiveness of Using Picture Media in Teaching Reading to Class XQ MA Darul Huda Mayak Ponorogo in Academic Year 2011/2012.

Based on the data that has been processed by the researchers showed that using the picture media is effective in teaching reading for class XQ MA Darul Huda Mayak Ponorogo in academic year 2011/2012, it can be seen on the rise of score which reached 17,35.⁴¹

The second is by Suyani, the research title: The Implementation of Reading Guide in Teaching Reading at The Tenth Grade of SMA Pemberdayaan Bangsa in Academic Year 2010/2011.⁴² Based on that research showed that reading guide strategy can increase reading ability or has positive result for the tenth grade students of SMA Pemberdayaan Bangsa. Its seen from the student's interest in the teaching reading and the students can solve some problem and also they more confident than before.

The third is by Diana Herlianti, the research title: The Effectiveness of SQ3R Method to Teach Reading Comprehension (an experimental Study in the Second year students of SMPN 1 Jenangan Ponorogo in Academic Year 2009/2010.⁴³ Based on that research showed that SQ3R

⁴¹ Buana Mustika Sari, "The Effectiveness of using Picture Media in Teaching Reading to Class XQ MA Darul Huda Mayak Ponorogo," (Thesis STAIN Ponorogo, 2012).

⁴² Suyani, "The Implementation of Reading Guide in Teaching Reading for the Tenth Grade Students of SMA Pemberdayaan Bangsa," (Thesis STAIN Ponorogo, 2011).

⁴³ Diana Herlianti, "the Effectiveness of SQ3R Method to Teach Reading Comprehension," (Thesis STAIN Ponorogo, 2010).

method is not effective to teach reading comprehension because the result before use the SQ3R method is good but after use the SQ3R method the result is decrease.

Here, the researcher tries to use the other technique that is small group technique in teaching reading to know the result of it. Small group technique is hoped can give the big contribution in teaching reading. The students can work together in their group to discuss the text and then find the meaning of text. Even, in small group they can discuss each other in little space.

C. Theoretical Framework

Reading is one of language skills considered for ones growth as individual in many aspects of life. In order that students know about reading, they need knowledge to master it. Through teaching reading is hoped to make real that students can master it. Teaching reading means convey the meaning of text from the teacher to the students. The purpose of teaching reading is students can find the meaning in order that they can understand and catch the point.

Many techniques or media as reading guide which are applied in teaching reading. Here, the students learn to search information from the text. Then teacher gives questions and the students answer it based on the passage. The other is picture media used in teaching reading. Here, the picture which is inserted in the text can help the students to understand the text. They not only read the text, but also see the picture to get meaning.

As previous research by Diana, SQ3R method to teach reading comprehension is not effective because the result after using that method is decrease than before.

The other technique which may be applied by the researcher in teaching reading is small group technique. Small group instruction typically refers to a teacher working with a small group of students on a specific learning objective. These group consist of 2-4 students and provide those students with a reduced student- teacher ratio.⁴⁴ In teaching learning, the teacher must chooses the suitable technique based on the student's condition, because the suitable technique can bring the big influence to success in the study.

D. Hypothesis

Hypothesis is theoretical and logical prediction. Here, the researcher who is trying to measure the effect or the relationship between two or more variables must predict the answer of the problem or the finding of the research based on theory or based logical common sense.⁴⁵

Hyphothesis is a temporary answer to statement of the problems of theoretical research that is considered most likely and highest levels were correct. The researcher make hypothesis that:

Ha : There is significant difference on students' reading achievement who are taught by using small group technique and without small group technique at the eighth grade

⁴⁴<http://teaching.about.com/od/s-zteachingvocabulary/g/small-group-instruction.htm>.

⁴⁵Mohammad Adnan Latief, *Research Methods on Language Learning An Introduction* (Malang: UM Press, 2013), 54.

students of MTs Miftahul Ulum Balong in academic year 2014/2015.

Ho : There is not significant difference on students' reading achievement who are taught by using small group technique and without small group technique at the eighth grade students of MTs Miftahul Ulum Balong in academic year 2014/2015.

STAINPONOROGO

CHAPTER III

RESEARCH METHODOLOGY

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

A. Research Design

There are various research designs in a research. The design in this research is using quantitative approach. Quantitative design is emphasizes precisely measuring variables and testing hypothesis that are linked to general causal explanation.⁴⁶ There are four kinds of experiment, they are pre experiment, true experiment, quasi experiment, and ex post de facto. The researcher uses experimental research design method, especially quasi-experimental design to find the causal relation and use Non-equivalent (pre-test and post-test) control group design. In experimental research, there is a treatment. So, experimental research is as experimental method that is used to find the effect of treatment toward something in a controlled condition.⁴⁷

⁴⁶ W. Laurence Newman, *Social Research Methods: Qualitative and Quantitative Approaches* (USA: Allyn and Bacon, 1991), 122.

⁴⁷ Sugiyono, *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, dan R&D* (Bandung: Alfabeta, 2008), 72.

Charles states in Adnan “ In educational settings, very often it is not possible to select the sample randomly out of all the population students. When the researcher can only assign randomly different treatments to two different classes, the researcher uses quasi experimental research design.⁴⁸ So, quasi experimental research used to determine the samples that are not possible selected. There are two groups of subjects which are required in this research, they are experiment group and control group. The two groups take a pre-test and post-test. Only the experiment group receives the treatment. The experiment group in this research is the students who are taught by small group technique and the control group is the students who are not taught by small group technique. The experiment and the control class must be parallel. It means, the students of those classes have same capability and achievement in reading. These classes are chosen based on English teacher’s recommendation who knows their capability exactly or the researcher can chooses it by seeing the achievement of those classes.

In this research uses experiment to know the effectiveness of small group technique in teaching reading by comparing students’ reading achievement which use small group technique and do not use small group technique. Here, there are two variables, teaching reading as dependent variable and small group technique as independent variable.

⁴⁸ Mohammad Adnan Latief, *Research Methods on Language Learning An Introduction* (Malang: UM Press, 2013), 95.

The research design is as follows:

$$E \ O1 \rightarrow X \rightarrow O2$$

$$K \ O3 \rightarrow O4$$

Notes:

E : experiment class (the students who are taught use small group technique)

K : control class (the students who are taught lecturing method)

O1 : pre test for the experiment class

O3 : pre test for the control class

X : treatment

O2 : post test for the experiment class after using small group technique

O4 : post test for the control class after using conventional method.⁴⁹

Based on explanation above, in this research has two classes they are experiment and control class as the subject. Here, pre test before treatment in order that to make students in same condition and to know the student's reading and post test after treatment to measure the effectiveness of that treatment. The researcher tries to express phenomenon by collecting data from natural research to understand phenomenon and to get conclusion after observing the fact. The result of collecting data will be

⁴⁹Suharsimi Arikunto, *Prosedur Penelitian Suatu Pendekatan Praktek*. (Jakarta: Rineka Cipta,1992), 79.

treated as the data of this research to prove the hypothesis which is formulated.

The goal of the research design which use small group technique in teaching reading is to know this technique is effective or not to be applied in teaching reading. These are three steps:

1. Pre Research Step

Here, the researcher must prepare the data which is needed before start the research. Firstly, determine between experiment and control class, lesson plan, and instrument.

2. While Research Step

For this step, the researcher apply small group technique in experiment class and conventional method in control class. Data will be conducted from pre test and post test.

3. Data Analysis Step

In this section, data which are gotten, will be analyzed by the researcher.

- a. Collect the post test score from experiment and control class.

- b. Test the data with t-test.

T-test is the one of statistic test which used to test the correctness or error of null hypothesis which declare that between two mean of samples which be taken randomly

from the same population, there is no different significant.⁵⁰

Null hypothesis is used to know the effectiveness small group in teaching reading at the eighth grade students of MTs Miftahul Ulum Balong. Before do t-test the researcher must find the other result they are; mean, standard deviation, and standard error from each variable.

$$t_0 = \frac{M_1 - M_2}{SE_{M_1 - M_2}}$$

B. Population and Sample

1. Population

Research object as a target to get and to collect the data is called population.⁵¹ According to Suharsimi Arikunto, the population is the subject of study or group of subjects that would be a subject to generalize the study results.⁵² From those statement, population is all of the students will be observed by the researcher. Population is also the whole object that the researcher wants to search which has specific characteristics.

In this research, the population was eighth grade students of MTs Miftahul Ulum Balong in academic year 2014/2015. The total number

⁵⁰Retno Widyaningrum, Statistika (Yogyakarta: Pustaka Felicha, 2011), 153.

⁵¹P. Joko Subagyo, Metode Penelitian Dalam Teori dan Praktek. (Jakarta: PT RINEKA CIPTA, 2004), 23.

⁵²Suharsimi Arikunto, Prosedur Penelitian Suatu Pendekatan Praktek. (Jakarta: Rineka Cipta, 2002), 130.

of population were 87 students. There are divided into three classes. For those classes, the researcher choosed two classes of the eighth grade as experiment class and controlled class. To select a sample, the researcher took a reading achievement data that has been done by the teacher. Then, the value of the results, the researcher measured means and standard deviation of the classes (have capibility-similar or not).

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

2. Sample

The part of population is called as sample which considered to represent that population.⁵³ Sample is smaller than the total of population. Based on statement, sample was used to make the process of data collection more effective, efficient, and objective conducted. Thus, sampling technique was a procedure of taking part of population will be used as the sample.

According to Margono, cluster random sampling or sample area (group) is determined based on the sampling areas or groups that exist

⁵³P. Joko Subagyo, *Metode Penelitian Dalam Teori dan Praktek*. (Jakarta: PT RINEKA CIPTA ,2004),23.

in the population such as school, class, region, and not individual.⁵⁴ According Charles in Adnan, cluster technique sampling involves the random selection of groups that already exists.⁵⁵

Probability samples that rely on random process require more work than non random ones. Random samples are most likely to yield a sample that truly represents the population.⁵⁶ Random sampling technique can be carried out through these ways such as simple random, stratified, systematic, and cluster.⁵⁷ In this research the researcher uses cluster random sampling as a technique because cluster random sampling was easier in the implementation and manageable than the others technique. Moreover, the researcher limitation of time, energy, and fee.

The steps of randomizing sample as follows:

1. Preparing of pieces of papers
2. Writing the class code on the papers which is prepared
3. Rolling the papers well
4. Putting the rolled papers in a can
5. Shaking the several times
6. Taking two rolled papers to be the samples

⁵⁴ S. Margono, *Metodologi Penelitian Pendidikan* (Jakarta: PT Rineka Cipta, 1997), 127.

⁵⁵ Mohammad Adnan Latief, *Research Methods on Language Learning An Introduction* (Malang: UM Press, 2013), 185.

⁵⁶ W. Laurence Newman, *Social Research Methods: Qualitative and Quantitative Approaches* (USA: Allyn and Bacon, 1991), 203.

⁵⁷ *Ibid*, 216.

In conclusion, the samples will be taken randomly or lottery. The two samples as experiment group and control group also are taken randomly.

C. Instrument of Data Collection

Instrument is a tool that used by a researcher in collecting the data in order that he or she works easier, the result is better, accurate, complete, and systematic, so that the data are easy to be processed. Data is the most important thing in the research. To get the data, the researcher has to arrange the instrument and technique data that are needed to collect the data. Here, using test to collect the data.

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

In this research, the researcher used reading achievement test which has already been prepared by the researcher to find out the effectiveness of small group technique. The form test is objective. There are 30 multiple choice items by took 60 minutes to completed.⁵⁸ The test is measured the student's ability in reading achievement that has been previously taught by

⁵⁸See Appendix 1

the teacher. The experiment was held in five meeting. They are pre-test, treatment 1, treatment 2, treatment 3, and post-test. A good instrument must fulfill two important of requirements, they are valid and reliable. Therefore, the researcher used instrument test with two tests, the first test is test of validity and the second test is test of reliability.

1. Test of Validity

By far most complex criterion of an effective test and arguably the most important principle is validity, “The extent to which inferences made from assessment results are appropriate meaningful and useful in terms of the purpose of the assessment”.⁵⁹ To determine the internal validity of an instrument, the researcher uses formula Karl Pearson product moment.

$$r_{xy} = \frac{n\sum XY - (\sum X)(\sum Y)}{\sqrt{(n\sum X^2 - (\sum X)^2)(n\sum Y^2 - (\sum Y)^2)}}$$

Information:

r_{xy} = coefficient correlation between variable x and y

N = total respondent

$\sum XY$ = total product score with score total

$\sum X$ = scores item total

$\sum Y$ = scores total

$(\sum X)^2$ = quadrate score item total

$(\sum Y)^2$ = quadrate score total

⁵⁹ Douglas Brown, Language Assessment Principal and Classroom Practices (New York: Longman, 2000),22.

It is very important to test the validity of our instrument before we are going to hold the research. Because when our instrument is valid, the data gained are accurate and valid. Here, the table indicators of instrument.

Table 3.1
The Indicators of Instrument

Title of research	Variable	Indicator	No. item of instrument
The Effectiveness of Small Group Technique in Teaching Reading at the Eighth Grade Students of M.Ts Miftahul Ulum Balong in Academic Year 2014-2015	Reading skill	Understanding simple definition (vocabulary)	1,2,5,6,7,8,9,15,16,18,23,24,27,29
		Understanding significance and meaning	3,4,10,11,12,13,14,17,19,20,21,22,25,26,28,30

In this research instrument, the researcher make 30 questions to test the validity of items. From those questions, 27 questions are valid and 7 questions are invalid after tested by product moment the Pearson's formula. But, there is revision of the questions which are invalid. In giving the interpretation, Masrun in Sugiyono stated "Items that have a positive correlation with the criterion (total score) and high correlation indicating that the item also has a high validity. Typically, the minimum requirements to be eligible is if "r" = 0.3. If the correlation less than 0.3

the item in the instrument shall be declared invalid.⁶⁰ Here, product moment formula is used to know the items in the instrument valid or invalid with the criteria. So, when the coefficient correlation was under 0,30, it can be concluded that the item was not valid instrument. Thus, the items said to be valid instruments if the coefficient correlation of magnitude more than 0,30.

Example of item No.7 (in the multiple-choice test):

$$\begin{aligned}
 \text{Item 7 } r_{xy} &= \frac{N \cdot \sum XY - (\sum X) \cdot (\sum Y)}{\sqrt{(N \cdot \sum X^2 - (\sum X)^2) \cdot (N \cdot \sum Y^2 - (\sum Y)^2)}} \\
 &= \frac{29 \cdot 227 - (13) \cdot (462)}{\sqrt{(29 \cdot 13 - (13)^2) \cdot (29 \cdot 7496 - (462)^2)}} \\
 &= \frac{6583 - 6006}{\sqrt{(377 - 169) \cdot (217384 - 213444)}} \\
 &= \frac{577}{\sqrt{208 \cdot 3940}} \\
 &= \frac{577}{\sqrt{819520}} \\
 &= \frac{577}{905,2734394} \\
 &= 0,637376482 \text{ (valid)}
 \end{aligned}$$

To test the validity and reliability of the instrument, the researcher took a sample of 29 respondents used 30 item of reading test.⁶¹ Validity of the calculated item instrument to 30 items about reading material, there were 23 items about which declared valid are the item number 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 27, 28.⁶² The calculation result of data validity, as follow:

⁶⁰ Sugiyono, Metode Penelitian Pendidikan (Bandung: Alfabeta, 2008), 133-134.

⁶¹ See Appendix 2

⁶² See Appendix 3

Table 3.2
The result of validity test:

No. Item	“r” calculated (r_h)	“r” index (r_t)	Notes
1	0.00	0.30	Invalid
2	0.36	0.30	Valid
3	0.37	0.30	Valid
4	0.68	0.30	Valid
5	0.49	0.30	Valid
6	0.51	0.30	Valid
7	0.63	0.30	Valid
8	0.44	0.30	Valid
9	0.76	0.30	Valid
10	0.70	0.30	Valid
11	0.51	0.30	Valid
12	0.80	0.30	Valid
13	0.51	0.30	Valid
14	0.53	0.30	Valid
15	0.35	0.30	Valid
16	0.51	0.30	Valid
17	0.63	0.30	Valid
18	0.86	0.30	Valid
19	0.44	0.30	Valid
20	-0.00	0.30	Invalid
21	0.35	0.30	Valid
22	0.32	0.30	Valid
23	0.43	0.30	Valid
24	0.00	0.30	Invalid
25	0.00	0.30	Invalid
26	0.00	0.30	Invalid
27	0.83	0.30	Valid
28	0.51	0.30	Valid
29	-0.57	0.30	Invalid
30	-0.49	0.30	Invalid

Based on the table, among 30 questions, there are 23 questions was valid and 7 questions was invalid. But the researcher still uses 30 questions for collecting data, because the questions can measure the special purposes which is equal with the material or content given.

2. Test of Reliability

Reliability defined as the level of internal consistency or stability of the measuring device over time.⁶³ In this research, the researcher uses a method of Kuder-Richardson. Application of this method using scores 1 for correct answers and score 0 for incorrect answers. K-R 20 formula is⁶⁴:

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

Note :

r_{11} : The reliability test

p : The subject proportion with right answer

q : The subject proportion with wrong answer

Σpq : The total number of the multiply between p and q

n : All item

N : Number of students

S^2 : The deviation standard of test

$$\begin{aligned} S^2 &= \frac{\Sigma X^2 - \frac{(\Sigma X)^2}{N}}{N} \\ &= \frac{7496 - \frac{(462)^2}{29}}{29} \\ &= \frac{7496 - \frac{213444}{29}}{29} \end{aligned}$$

⁶³ Walter R. Borg, Educational Research: An Introduction (London: Longman, 1983), 281

⁶⁴ Hamzah B. Uno, Satria Koni, Assessment Pembelajaran (Jakarta: Bumi Aksara, 2014), 173.

$$= \frac{7436 - 7360.137931}{29}$$

$$= \frac{135.862069}{29}$$

$$= 4.684898931$$

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

$$= \left(\frac{30}{30-1} \right) \cdot \left(\frac{4.684898931 - 3.1781}{4.684898931} \right)$$

$$= \left(\frac{30}{29} \right) \cdot \left(\frac{1.506798931}{4.684898931} \right)$$

$$= 1.034482759 \times 0.421628908$$

$$= 0.436167836 / 0.436. \text{ (Reliable)}$$

The calculation of reliability above can know the value of the variable instrument reliability of student's reading achievement of class VIII.⁶⁵ Values 0.436167836 then consulted with "r" table on the significance level of 5% is 0,367. Because "r" count (0,436) > "r" table (0,367), so the instrument can be said reliable. For more details it can be seen in the following table:

Table 3.3
Test Result of Reliability

"r" arithmetic	"r" table	Explanation
0.436167836	0,367	Reliable

⁶⁵See Appendix 4

D. Technique of Data Collection

The use of the right technique in collecting data is important to take the objective data. Technique of data collection is all of ways who used by researcher to get data in the research.

1. Test

The technique of collecting data in this research is test. It helps teachers to learn more about their learners' needs and progress and about the effectiveness of their teaching. According to Suharsimi Arikunto, test is an instrument or systematic procedure and the objective to get data or notes which will be knew about someone exactly. Meanwhile, according to Wayan Nurkancana, test is a manner to conduct a research which is task formed or task stripping which must be worked by the learners or group of student until produce a behavior value or students' achievement, which compared with value of the other students or based on standard value.⁶⁶

In testing reading achievement, the students were asked to answer some questions relating to the texts that were given by the teacher. Reading test was used for the pre-test and post-test not only to measure the students' achievement in reading but also to collect the data. This research choose traditional multiple-choice questions to evaluate students' reading achievement.

⁶⁶Iskandarwassid, Dadang Sunendar. Strategi Pembelajaran Bahasa. (Bandung: PT Remaja Rosdakarya, 2008), 179-180.

2. Documentation

Documentation defined as documents used as evidence or proof.⁶⁷ Thus, documents are official paper that gives information or evidence. So, documentation is a kind of important technique to get the data about everything which is in the form of notes, transcript, book, newspaper, and so on.

In this research, the documentation is used to get the data about student's names, vision, mission, goals, facilities, infrastructure, and organization structure of Mts Miftahul Ulum Balong.

E. Technique of Data Analysis

Test may be defined as an activity whose main purpose is to convey how well the testee knows or can do something.⁶⁸ In this study, after collecting the data researcher uses "t-test" as the formula to analyze the data. This technique is used because the researcher would like to measure the effectiveness of small group technique in teaching reading at the eight grade students of MTs Miftahul Ulum Balong in academic year 2014/2015. Another it, the researcher uses statistical analysis to get result of this research. It is used to compare the result of post test the experiment class and control class.

Before testing hypothesis the data have to fulfil the assumption for testing the hypothesis. Those are normality and homogeneity.

⁶⁷A. S. Hornby, *Oxford advanced Learner's Dictionary of Current english*. (New York: Oxford University Press, 1987), 132.

⁶⁸Penny Ur, *A Course in Language Teaching*. (New York: Cambridge University Press), 33.

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

a. Formulated hypothesis

Ho : the data was not normality distributed

Ha : the data was normality distributed

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

$$Mx = \frac{\sum fx}{n}$$

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

c. Calculating the value of fkb

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

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

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

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

g. Calculate $P \leq Z$

h. For a_2 values obtained from the difference between columns 5 and 7 (fkb/n and $P \leq Z$)

- i. For a_1 values obtained from the difference between columns 4 and 8 (f/n and a_2)
 - j. Comparing the highest number a_1 with Kolmogorov-Smirnov table
 - k. Test the hypothesis
 - l. If a_1 maksimum < kolmogorov smirnov table, receive H_a and data is normal distribution.⁶⁹
2. Homogeneity test using Harley test. Homogeneity test is the variance ratio test between two group or more.⁷⁰ This can be tested by Harley test.

$$F(\max)_{\text{count}} = \frac{\text{Var max}}{\text{Var min}} = \frac{SD_{\text{max}}^2}{SD_{\text{min}}^2}$$

The steps of analyzing homogeneity test as follows:

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

$$SD_x = \sqrt{\frac{\sum fx^2}{n_x} - \left(\frac{\sum fx}{n_x}\right)^2} \quad SD_y = \sqrt{\frac{\sum fy^2}{n_y} - \left(\frac{\sum fy}{n_y}\right)^2}$$

- c. Using the Harley formula:

$$F(\max)_{\text{count}} = \frac{\text{Var max}}{\text{Var min}} = \frac{SD_{\text{max}}^2}{SD_{\text{min}}^2}$$

- d. Comparing F (max) results calculated with F (max) table, with db = (n-1 ; k)

⁶⁹ Retno Widyaningrum. Statistika (Yogyakarta: Pustaka Felicha, 2011), 206-210.

⁷⁰ Ibid. 214.

⁷¹ Ibid, 216

3. The “t-test” formula is as follow:⁷²

T- Test used for large samples ($N > 30$) which had not correlation with one another.

The formulas are:

$$t_0 = \frac{M_1 - M_2}{SE_{M_1 - M_2}}$$

Steps:

1. Account the mean from variable I and variable II

$$M_1 = M' + i \left[\frac{\sum f x'}{n_1} \right] \quad M_2 = M' + i \left[\frac{\sum f y'}{n_2} \right]$$

2. Account the standard deviation from variable I and variable II

$$SD_1 = i \sqrt{\frac{\sum f x'^2}{n_1} - \left[\frac{\sum f x'}{n_1} \right]^2} \quad SD_2 = i \sqrt{\frac{\sum f y'^2}{n_2} - \left[\frac{\sum f y'}{n_2} \right]^2}$$

3. Account mean standard error from variable I and variable II

$$SE_{M_1} = \frac{SD_1}{\sqrt{n_1 - 1}} \quad SE_{M_2} = \frac{SD_2}{\sqrt{n_2 - 1}}$$

4. Account the different error standard between variable I and variable II

$$SE_{M_1 - M_2} = \sqrt{SE_{M_1}^2 + SE_{M_2}^2}$$

5. Measure t_0

$$t_0 = \frac{M_1 - M_2}{SE_{M_1 - M_2}}$$

⁷²Ibid, 183.

Interpretation:

1. Formulate H_a and H_o

H_a : there is a significant difference in mean between the variable X and Y

H_o : there is no significant difference in mean between the variable X and Y.

2. Test the truth of H_a and H_o by comparing the value of t_0 with

T_{table} with $db = n_1 + n_2 - 2$

3. Consulted with the “t”

On the significance level 5%, $t_0 > t_t$, then H_o refused or received H_a .

On the significance level on 1%, $t_0 < t_t$, then H_a or H_o received or refused.

In conclusion, interpretation is consulting the result between t_t (t-table) and t_0 (t-observation). If the result is higher than t_t , so, H_o is refused and H_a is received and the meaning is there is significance difference in mean between variable X and Y. If the result is smaller than t_t , so, H_o is received and H_a is refused and the meaning is there is no significance difference in mean between variable X and Y.

CHAPTER IV

RESEARCH RESULT

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

A. Research Location

1. General Location

The researcher conducted the research at MTs Miftahul Ulum Balong in academic year 2014/2015. It is located in Tasikmadu Street Ngraket Village at Balong District Ponorogo. Even MTs Miftahul Ulum Balong as the Islamic Junior High School which was the first built in the Balong area, it has many students and not least with other Islamic Junior High schools in the region Ponorogo.

MTs Miftahul Ulum Balong supported by professional educators with educational qualifications S1. At its inception (1982) MTs Miftahul Ulum Balong only have a few classes and now has developed into 9 classes. MTs Miftahul Ulum Balong continue to develop themselves and are now aligned with another school in the town of Ponorogo. While it continues carved achievement both in academic and non-academic. For more information about MTs Miftahul Ulum Balong can be explained behind.⁷³

MTs Miftahul Ulum Balong uses Kurikulum Tingkat Satuan Pendidikan (KTSP). This curriculum is developed from standard of content by school

⁷³See Appendix 5,6,7

based on their context and potential. They improve the curriculum based on the demands of the times. They use KTSP for all subject. So, the researcher also uses lesson plan with KTSP model.⁷⁴

Teachers are figure to be uswah khasanah or good attitude example for the students. The teachers have to act as advisor for the students in developing creativity and self potential and as motivator that help the students raise the goal and aspiration. The existense of a teachers at MTs Miftahul Ulum Balong has a qualified majority of S1. This greatly affects the performance of the school in an effort to improve the quality of education. The whole teachers of MTs Miftahul Ulum Balong from many universities such as graduated from STAIN, INSURI, IAIRM and so on. So that, innovation and creativity teachers has increased and potential as educators, teachers, social and personal services can already be actualized although not 100%. The total of teachers in MTs Miftahul Ulum Balong is 21 teachers.

Students are the important component in education course. There are 284 students of MTs Miftahul Ulum Balong in academic year 2014/2015. It it devided into three grades; the seventh grade, the eighth grade, and the ninth grade. The researcher conduct the study at the eighth grade students, because the big problem on english lesson is at the eighth grade. Some problems are like the students found difficulties in understanding english texts. The students didn't understand the meaning of the english text. The students often forget some materials that the teacher has explained and the most important

⁷⁴ Appendix 8

problem is the students have a low in reading. Here, the researcher conducts the research to solve that problem by applying small group technique. It is effective applied in teaching reading that is why this technique is worthy to be applied because it motivates students to pour their ideas easily.

2. Time of The Research

This research was conduct in April, 13rd – 25th 2015. The schedule for experiment and control class can be seen in the table below:

Table 4.1: Experiment Class Schedule

Date	Activities
April, 13 rd 2015	Pre-test
April, 17 th 2015	First treatment
April, 20 th 2015	Second treatment
April, 24 th 2015	Third treatment
April 27 th 2015	Post test

Table 4.2: Control Class Schedule

Date	Activities
April, 14 th 2015	Pre-test
April, 18 th 2015	First meeting
April, 21 st 2015	Second meeting
April, 25 th 2015	Third meeting
April 28 th 2015	Post test

B. Data Description

In this research, the researcher uses quasi experiment research. The population that used in this research is the eighth grade students of M.Ts

Miftahul Ulum Balong in academic year 2014/2015. The researcher took 54 students as samples and divided them into two groups. Each group consist of 27 students. The first group was the students who are taught by small group technique, and the second group was the students who are not taught by small group technique. Here, the researcher wants to compare between learning by cooperative in group and learning not in group. MTs Miftahul Ulum uses Kurikulum Tingkat Satuan Pendidikan (KTSP). This curriculum is developed from standard of content by school based on their context and potential. They improve the curriculum based on the demands of the times. They use KTSP for all subject. So, the researcher also uses lesson plan with KTSP model that is arranged from the syllabus.⁷⁵

In experiment class, the researcher teaches the students by using small group technique. Here, in teaching reading the researcher divided the students into groups firstly. Each group consists of 4-5 students and then the researcher distributes the text to the each group. They must do the work with their group because this small group technique is cooperative learning. After that, discuss the material together. In cooperative group, they can know how to work with friends, how to share the ideas, and how to make conclusion together.

In control class, the researcher teaches the students by reading guide in whole class. In control class the texts are distributed for the all of students. Then the researcher guides them to answer the question. But, they cannot

⁷⁵ See Appendix 9

work with their friends, they also cannot share their ideas to their friends and they make the conclusion by themselves.

This is show the result of teaching reading in experiment class and control class:

1. Pre- test experiment class and control class⁷⁶

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

No	Name	Score
1	Ahmad Nur Kosim	30
2	Andri Dwi Arfiantoni	43
3	Angger Rahadian	43
4	Anjar Nur Wafi	50
5	Armandha Aprilia Putri	67
6	Ayu Fairus Milawati	70
7	Dani Eko Saputro	30
8	Dewi Nur Beti	67
9	Eni Agustina Rahmawati	77
10	Gabyancin Wahyu Kayput	47
11	Harmadi	43
12	Irvan Adi Prasetyo	43
13	Iwan Hartanro	30
14	Karisma Dewi Saputri	50
15	Muhamad Aziz	50
16	Muhamad Subakti	67
17	Pujiati	37
18	Ratna Nilam Sari	73
19	Ridwan Alfandi	67
20	Risma	43
21	Rudianto	40
22	Sri Wulandari	50
23	Srinatin	40
24	Teguh Budianto	37
25	`aina Roisatun Nafi'a	70

⁷⁶ See Appendix 10

26	Islam Aldi Setiawan	47
27	Tsani Nur Khoiriyah	43

From the table above, could be seen that the highest scores for experiment class is 77; there is only one student who got the highest score. The lowest score for the experiment class is 30; there is three students who have the lowest score.

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

No	Name	Score
1	Agus Sutrisno	57
2	Agus Wafiu Abasudin	67
3	Ahmad Rifai	47
4	Ali Rohman	67
5	Alif Luki Kurniawati	50
6	Anik Dwi Puspitasari	63
7	Arif Rifai	57
8	Arum Dwi Syafitriana	57
9	Dian Nur Safitri	60
10	Dian Permata Sari	70
11	Dino Aminu Rosyid	67
12	Edi Sukoco	57
13	Elika Kusuma Wardani	60
14	Faizal Hariz Efendi	33
15	Feri Irawan	63
16	Hari Muhtadi	67
17	Heru Prasetyo Utomo	47
18	Iskandar	63
19	Krisna Pian Afandi	50
20	Lilis Setyowati	53
21	Ma'ruf Islamudin	57
22	Melia Ambaresty Fitrya	63
23	Muhamad Mahfud Ihsan	53
24	Reni Restanti	70
25	Ridho Ihsanudin Badawi	57

26	Sholekah Utami	50
27	Silfia Nur Rahma	63

The table above showed the score of the pre test of the students not being taught using small group technique. The highest score for controlled class is 70; there is two students who got the highest score. The lowest score is 33; there is one student who got the lowest score.

2. Post-test experiment class (using small group technique) and control class (not being taught small group)⁷⁷

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

No	Name	Score
1	Ahmad Nur Kosim	73
2	Andri Dwi Arfiantoni	73
3	Angger Rahadian	70
4	Anjar Nur Wafi	70
5	Armandha Aprilia Putri	80
6	Ayu Fairus Milawati	96
7	Dani Eko Saputro	73
8	Dewi Nur Beti	80
9	Eni Agustina Rahmawati	96
10	Gabyancin Wahyu Kayput	73
11	Harmadi	73
12	Irvan Adi Prasetyo	60
13	Iwan Hartanro	70
14	Karisma Dewi Saputri	80
15	Muhamad Aziz	80
16	Muhamad Subakti	80
17	Pujiati	70
18	Ratna Nilam Sari	96
19	Ridwan Alfandi	90
20	Risma	70

⁷⁷ See Appendix 11

21	Rudianto	73
22	Sri Wulandari	80
23	Srinatin	73
24	Teguh Budianto	60
25	`aina Roisatun Nafi'a	93
26	Islam Aldi Setiawan	85
27	Tsani Nur Khoiriyah	65

From the table above, could be seen that the highest scores for experiment class is 96; there are three students who got the highest score. The lowest score for the experiment class is 60; there are two students who have the lowest score. So that, could be concluded the post test of the students taught using small group technique was good.

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

No	Name	Score
1	Agus Sutrisno	63
2	Agus Wafiu Abasudin	77
3	Ahmad Rifai	63
4	Ali Rohman	77
5	Alif Luki Kurniawati	53
6	Anik Dwi Puspitasari	80
7	Arif Rifai	63
8	Arum Dwi Syafitriana	67
9	Dian Nur Safitri	57
10	Dian Permata Sari	73
11	Dino Aminu Rosyid	70
12	Edi Sukoco	63
13	Elika Kusuma Wardani	70
14	Faizal Hariz Efendi	70
15	Feri Irawan	63
16	Hari Muhtadi	70
17	Heru Prasetyo Utomo	50
18	Iskandar	67

19	Krisna Pian Afandi	70
20	Lilis Setyowati	77
21	Ma'ruf Islamudin	63
22	Melia Ambaresty Fitriya	70
23	Muhamad Mahfud Ihsan	63
24	Reni Restanti	73
25	Ridho Ihsanudin Badawi	63
26	Sholekah Utami	50
27	Silfia Nur Rahma	73

The lists of scores above, show the condition before (pre-test) and after (post-test). In experiment class, the achievement before treatment show that the students' achievement is less, but after treatment by small group technique the students' achievement is up. Whereas in control class, the achievement of pre-test and post-test the difference of two tests is not far. So, in experiment class the students' achievement is higher than in control class.

C. Data Analysis

Before testing hypothesis, the data have to fulfil the assumption for testing hypothesis. Those are normality and homogeneity of the data.

1. Normality

Normality test was conducted to known whether the data distribution was normal distribution or not.⁷⁸

a. Kolmogorov- Smirnov

For this test, it would be proposed the hypothesis as follow:

Ho: the data was not normal distribution

⁷⁸Retno Widyaningrum, Statistik (Ponorogo: STAIN Ponorogo Press, 2009), 206.

Ha: the data was normal distribution

Table 4.7 Normality of Data and Calculation of The Students' Post Test in Experimental Group.

X	f	fX	X²	fX²
96	3	288	9216	27648
93	1	93	8649	8649
90	1	90	8100	8100
85	1	85	7225	7225
80	6	480	6400	38400
73	7	511	5329	37303
70	5	350	4900	24500
65	1	65	4225	4225
60	2	120	3600	7200
	27	2082		163250

Calculate the average:

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

$$= \frac{2082}{27}$$

$$= 77.11111111$$

Calculate the deviation standard:

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

$$= \sqrt{\frac{163250}{27} - \left(\frac{2082}{27}\right)^2}$$

$$= \sqrt{6046.296296 - (77.11111111)^2}$$

$$\begin{aligned}
 &= \sqrt{6046.296296 - 5946.123457} \\
 &= \sqrt{100.1728392} \\
 &= 10.00863823
 \end{aligned}$$

Table 4.8 The Result of Normality Test for Experimental Group

X	f	fk _b	f/n	Fk _b /n	Z	P ≤ Z	a ₂	a ₁
1	2	3	4	5	6	7	8	9
96	3	27	0.1111	1.0000	1.887	0.9699	0.0301	0.081
93	1	24	0.0370	0.8889	1.588	0.9429	-0.054	0.091
90	1	23	0.0370	0.8519	1.288	0.8997	-0.0478	0.0848
85	1	22	0.0370	0.8148	0.788	0.7823	0.0325	0.0045
80	6	21	0.2222	0.7778	0.289	0.6103	0.1675	0.0547
73	7	15	0.2593	0.5556	-0.411	0.3409	0.2147	0.0446
70	5	8	0.1852	0.2963	-0.710	0.2389	0.0574	0.1278
65	1	3	0.0370	0.1111	-1.210	0.1131	-0.002	0.039
60	2	2	0.0741	0.0741	-1.710	0.0436	0.0305	0.0436
	27							

$$a_1 \max = 0.129$$

$$D_t = n = 27, \text{ on level } 0.05 = 0.27. \text{ So, } D_t = 0.27$$

$$\text{On level } 0.05 D_{(0.05;27)} = 0.27$$

$$a_1 \max < D_t 0.27, \text{ Ho is refused}$$

$$a_1 \max > D_t 0.27, \text{ Ho is received}$$

Because $a_1 \max 0.129 < D_t 0.27$, so, Ho is refused that means the data was normal distribution.

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

Y	f	fY	Y ²	fY ²
80	1	80	6400	6400
77	3	231	5929	17787
73	3	219	5329	15987
70	6	420	4900	29400
67	2	134	4489	8978
63	8	504	3969	31752
57	1	57	3249	3249
53	1	53	2809	2809
50	2	100	2500	5000
	27	1798		121362

Calculate the average:

$$\begin{aligned}
 M_y &= \frac{\sum fy}{n} \\
 &= \frac{1798}{27} \\
 &= 66.59259259
 \end{aligned}$$

Calculate the deviation standard:

$$\begin{aligned}
 SD_y &= \sqrt{\frac{\sum fy^2}{n} - \left(\frac{\sum fy}{n}\right)^2} \\
 &= \sqrt{\frac{121362}{27} - \left(\frac{1798}{27}\right)^2} \\
 &= \sqrt{4494.888889 - (66.59259259)^2} \\
 &= \sqrt{4494.888889 - 4434.573388}
 \end{aligned}$$

$$= \sqrt{60.315501}$$

$$= 7.766305492$$

Table 4.10 The Result of Normality Test for Control Group

Y	f	fk	f/n	Fk/n	Z	P ≤ Z	a ₂	a ₁
1	2	3	4	5	6	7	8	9
80	1	27	0.04	1.00	1.726	0.9573	0.043	0.003
77	3	26	0.11	0.96	1.340	0.9099	0.050	0.06
73	3	23	0.11	0.85	0.825	0.7939	0.056	0.054
70	6	20	0.22	0.74	0.439	0.6664	0.074	0.146
67	2	14	0.07	0.52	0.052	0.5199	0.000	0.07
63	8	12	0.3	0.44	-0.463	0.3228	0.117	0.183
57	1	4	0.04	0.15	-1.235	0.1093	0.041	0.001
53	1	3	0.04	0.11	-1.750	0.0401	0.070	0.03
50	2	2	0.07	0.07	-2.136	0.0166	0.053	0.017
	27							

$$a_1 \max = 0.183$$

$$D_t = n = 27, \text{ on level } 0.05 = 0.27. \text{ So, } D_t = 0.27$$

$$\text{On level } 0.05 D_{(0.05;27)} = 0.27$$

$$a_1 \max < D_t 0.27, \text{ Ho is refused}$$

$$a_1 \max > D_t 0.27, \text{ Ho is received}$$

Because $a_1 \max 0.183 < D_t 0.27$, so, Ho is refused that means the data was normal distribution.

2. Homogeneity

Homogeneity test is the variance ratio test between two group or more.⁷⁹

This can be tested by Harley test.

⁷⁹Ibid. 214.

The formula is:

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

Hypothesis:

Ho: the data is homogenous

Ha: the data is not homogenous

Table 4.11 Calculating Mean and Deviation Standard for Experimental Group by Using Small Group (X)

X	Torus	f	fX	X ²	fX ²
96	III	3	288	9216	27648
93	I	1	93	8649	8649
90	I	1	90	8100	8100
85	I	1	85	7225	7225
80	III I	6	480	6400	38400
73	III II	7	511	5329	37303
70	III	5	350	4900	24500
65	I	1	65	4225	4225
60	II	2	120	3600	7200
Total		27	2082		163250

Table 4.12 Calculating Mean and Deviation Standard for Control Group not being taught by Using Small Group (Y)

Y	Torus	f	Fy	Y ²	fY ²
80	I	1	80	6400	6400
77	III	3	231	5929	17787
73	III	3	219	5329	15987
70	III I	6	420	4900	29400
67	II	2	134	4489	8978
63	III III	8	504	3969	31752
57	I	1	57	3249	3249

53	I	1	53	2809	2809
50	II	2	100	2500	5000
Total		27	1798		121362

The Calculating of Deviation Standard (X)

$$\begin{aligned}
 SD_x &= \sqrt{\frac{\sum fx^2}{n_x} - \left(\frac{\sum fx}{n_x}\right)^2} \\
 &= \sqrt{\frac{163250}{27} - \left(\frac{2082}{27}\right)^2} \\
 &= \sqrt{6046.296296 - (77.11111111)^2} \\
 &= \sqrt{6046.296296 - 5946.123457} \\
 &= \sqrt{100.1728392} \\
 &= 10.00863823
 \end{aligned}$$

The Calculating of Deviation Standard (Y)

$$\begin{aligned}
 SD_y &= \sqrt{\frac{\sum fy^2}{n_y} - \left(\frac{\sum fy}{n_y}\right)^2} \\
 &= \sqrt{\frac{121362}{27} - \left(\frac{1798}{27}\right)^2} \\
 &= \sqrt{4494.888889 - (66.59259259)^2} \\
 &= \sqrt{4494.888889 - 4434.573388} \\
 &= \sqrt{60.315501} \\
 &= 7.766305492
 \end{aligned}$$

The Calculating by Using Harley Formula

$$\begin{aligned}
 F(\text{max})_{\text{hit}} &= \frac{\text{Var max}}{\text{Var min}} = \frac{SD_{\text{max}}^2}{SD_{\text{min}}^2} \\
 &= \frac{10.00863823^2}{7.766305492^2} \\
 &= \frac{100.1728392}{60.315501} \\
 &= 1.660814178
 \end{aligned}$$

Compare between $F(\text{max})_{\text{hit}}$ and $F(\text{max})_t$

$$\begin{aligned}
 db &= (n-1; k) \\
 &= (27-1; 2) \\
 &= (26; 2)
 \end{aligned}$$

$$\text{On 5\% level} = 2.40, F_{0,05}(26; 2) = 2.40$$

$F(\text{max})_{\text{hit}} 1.660814178 < F(\text{max})_t 2.40$, so, H_0 is received that means the data is homogeny.

3. T- Test⁸⁰

a. The Analysis of student's Post-test in Experiment Group using small group(variable X)

To obtain data, the researcher uses reading test to 27 students for experimental group and 27 students for control group, to know the differentiate students' reading achievement at the eighth grade students of MTs Miftahul Ulum Balong in Academic Year 2014-2015, the researcher applied "t" test formula as stated below.

⁸⁰ See Appendix 12

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

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

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

$$= 1 + 3.322 \log 27$$

$$= 1 + 3.322 \times 1.431363764$$

$$= 1 + 4.754990425$$

$$= 5.754990425 = \underline{6}$$

$$\text{Highest score} = 96 \quad \text{Lowest score} = 60$$

$$R = H - L + 1$$

$$= 96 - 60 + 1$$

$$= 37$$

$$i = \frac{R}{K} = 37/6 = 6.1666666667 = \underline{7}$$

Table 4.13 The Computation of Students' Post Test in Experimental

Group

Interval	f	fb	X	X'	fx'	(X') ²	f(X') ²
90 – 96	5	27	93	+3	+15	9	45
83 – 89	1	22	86	+2	+2	4	4
76 – 82	6	21	79	+1	+6	1	6
69 – 75	12	15	72	0	0	0	0
62 – 68	1	3	65	-1	-1	1	1
55 – 61	2	2	58	-2	-4	8	16
Total	27				+18		72

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

$$\begin{aligned}
 M_x &= M' + i \frac{\Sigma f x'}{n_x} \\
 &= 72 + 7 \cdot \frac{+18}{27} \\
 &= 72 + (7 \times 0.666666666) \\
 &= 72 + 4.666666667 \\
 &= 76.66666667
 \end{aligned}$$

- b. Look for SD_x

$$\begin{aligned}
 SD_x &= i \sqrt{\frac{\Sigma f (x')^2}{n_x} - \left(\frac{\Sigma f x'}{n_x}\right)^2} \\
 &= 7 \sqrt{\frac{72}{27} - \left(\frac{+18}{27}\right)^2} \\
 &= 7 \sqrt{2,666666667 - (0,666666666)^2} \\
 &= 7 \sqrt{2,666666667 - 0,444444444} \\
 &= 7 \sqrt{2,222222222} \\
 &= 7 \times 1.490711985 \\
 &= 10.4349839
 \end{aligned}$$

From the calculation above, it is known $M_x = 76.66666667$ and $SD_x = 10.4349839$.

b. The Analysis of student's Post-test in Control Group not being taught by small group(variable Y)

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

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

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

$$= 1 + 3.322 \log 27$$

$$= 1 + 3.322 \times 1.431363764$$

$$= 1 + 4.754990425$$

$$= 5.754990425 = \underline{6}$$

$$\text{Highest score} = 80 \quad \text{Lowest score} = 50$$

$$R = H - L + 1$$

$$= 80 - 50 + 1$$

$$= 31$$

$$i = \frac{R}{K} = \frac{31}{6} = 5.166666667 = 6$$

Table 4.14 The Computation of Students' Post Test in Control Group

Interval	f	fk	Y	Y'	fy'	(Y') ²	f(Y') ²
75 – 80	4	27	77.5	+2	+8	4	16
69 – 74	9	23	71.5	+1	+9	1	9
63 – 68	9	14	65.5	0	0	0	0
57 – 62	2	5	59.5	-1	-2	1	2
51 – 56	1	3	53.5	-2	-2	4	4
45 – 50	2	2	47.5	-3	-6	9	18
Total	27				+7		49

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

$$\begin{aligned}
 M_y &= M' + i \frac{\Sigma f y'}{n_y} \\
 &= 65.5 + 6 \cdot \frac{+7}{27} \\
 &= 65.5 + (6 \times 0.259259259) \\
 &= 65.5 + 1.555555556 \\
 &= 67.05555556
 \end{aligned}$$

- b. Look for SD_y

$$\begin{aligned}
 SD_y &= i \sqrt{\frac{\Sigma f (y')^2}{n_y} - \left(\frac{\Sigma f y'}{n_y}\right)^2} \\
 &= 6 \cdot \sqrt{\frac{49}{27} - \left(\frac{+7}{27}\right)^2} \\
 &= 6 \cdot \sqrt{1.814814815 - (0.259259259)^2} \\
 &= 6 \cdot \sqrt{1.814814815 - 0.067215363} \\
 &= 6 \cdot \sqrt{1.747599451} \\
 &= 6 \times 1.321968022 = 7.931808132
 \end{aligned}$$

From the calculation above, it is known $M_y = 67.05555556$ and $SD_y = 7.931808132$.

c. Testing Hypothesis (t_{test})

From both table above, the researcher compares the mean score of students' reading achievement taught using small group technique (X) and the students' reading achievement not being taught using small group technique (Y) with this steps:

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

$$\begin{aligned}
 M_x &= M' + i \frac{\Sigma fx'}{n_x} \\
 &= 72 + 7 \cdot \frac{+18}{27} \\
 &= 72 + (7 \times 0.666666666) \\
 &= 72 + 4.666666667 \\
 &= 76.66666667
 \end{aligned}$$

$$\begin{aligned}
 M_y &= M' + i \frac{\Sigma fy'}{n_y} \\
 &= 65.5 + 6 \cdot \frac{+7}{27} \\
 &= 65.5 + (6 \times 0.259259259) \\
 &= 65.5 + 1.555555556 \\
 &= 67.05555556
 \end{aligned}$$

- b. Look for SD_x and SD_y

$$SD_x = i \sqrt{\frac{\Sigma f(x')^2}{n_x} - \left(\frac{\Sigma fx'}{n_x}\right)^2}$$

$$\begin{aligned}
&= 7 \sqrt{\frac{72}{27} - \left(\frac{+18}{27}\right)^2} \\
&= 7 \sqrt{2,666666667 - (0,666666666)^2} \\
&= 7 \sqrt{2,666666667 - 0,444444444} \\
&= 7 \sqrt{2,222222222} \\
&= 7 \times 1.490711985 \\
&= 10.4349839
\end{aligned}$$

$$\begin{aligned}
SD_y &= i \sqrt{\frac{\Sigma f(y')^2}{n_y} - \left(\frac{\Sigma f y'}{n_y}\right)^2} \\
&= 6 \cdot \sqrt{\frac{49}{27} - \left(\frac{+7}{27}\right)^2} \\
&= 6 \cdot \sqrt{1,814814815 - (0,259259259)^2} \\
&= 6 \cdot \sqrt{1,814814815 - 0,067215363} \\
&= 6 \cdot \sqrt{1,747599451} \\
&= 6 \times 1.321968022 = 7.931808132
\end{aligned}$$

c. Determining standard error mean variable X and Y

$$\begin{aligned}
SE_{M_x} &= \frac{SD_x}{\sqrt{n_x - 1}} \\
&= \frac{10,4349839}{\sqrt{27 - 1}}
\end{aligned}$$

$$\begin{aligned} & \frac{10,4349839}{5,099019514} \\ & = 2.046468713 \end{aligned}$$

$$\begin{aligned} SE_{My} &= \frac{SD_y}{\sqrt{n_y-1}} \\ &= \frac{7.931808132}{\sqrt{27-1}} \\ &= \frac{7.931808132}{5.099019514} \\ &= 1.555555556 \end{aligned}$$

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

$$\begin{aligned} SE_{Mx-My} &= \sqrt{SE_{Mx}^2 + SE_{My}^2} \\ &= \sqrt{2.046468713^2 + 1.555555556^2} \\ &= \sqrt{4.188034193 + 2.419753088} \\ &= \sqrt{6.607787281} \\ &= 2.570561666 \end{aligned}$$

e. to score

$$\begin{aligned} t_o &= \frac{M_x - M_y}{SE_{Mx - My}} \\ &= \frac{76.66666667 - 67.05555556}{2.570561666} \\ &= \frac{9.61111111}{2.570561666} \end{aligned}$$

$$= 3.73891482$$

D. Discussion and Interpretation

From the computation above, it was shown that the difference coefficient on students' achievement who are taught using small group technique and the students who are not taught using small group is 3.74 it was used to find out whether the difference coefficient was a significant coefficient or not, and furthermore it could be used as a basic to generate the population.

Hypothesis test (t_o) at 3.74 from the computation above would be compared to the "t" index (t_t) with the condition stated below:

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

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

$$\begin{aligned} db &= n_1 - n_2 - 2 \\ &= 27 + 27 - 2 = 52 \end{aligned}$$

$$5\%, t_o = 3.73891482 / 3.74, t_t = 2.01 \text{ so, } t_o > t_t$$

From the db score, the researcher could known that in 5% signification level $t_o = 3,74$ and $t_t = 2, 01$. Based on this statement, the researcher interpret that there was a signifiant difference between the students taught using small

group technique and the students not being taught using small group technique, it implies that the students taught using small group technique achieve a better score in reading achievement.

So Alternative hypothesis (H_a) that state that the students taught using small group technique will achieve a better score in reading achievement was accepted.

From the data above, the researcher could conclude that there was a significant difference in reading achievement between the students who are taught using small group technique and the students who are not taught using small group technique. In other word, small group technique was effective in improving students' reading achievement at the eighth grade students' of MTs Miftahul Ulum Balong in academic year 2014/2015.

CHAPTER V

CLOSING

A. Conclusion

Based on the data described previously, the researcher draws the conclusion that there is significant difference on students' achievement who are taught by using small group technique and who are not taught by small group technique in teaching reading on the eighth grade students of MTs Miftahul Ulum Balong in academic year 2014/2015. The students who are taught using small group technique have a better score than those who are not taught using small group technique. It can be proofed by the analysis of the students' score.

The result of this research in this study is the mean score of the post-test from the experimental group is higher (77,11) than post-test from controlled group (66,6). It has been found that the comparison value (t_o) between students' reading achievement who are taught using small group technique and who are not is 3,74. This is higher than " t_t " value in the table, which is $t_t = 2.01$ at the level of significant 5% with $db=52$. So, H_a is accepted.

In the other word, small group technique has significant difference on students' achievement in teaching reading to improve students' reading achievement at the eighth grade students of MTs Miftahul Ulum Balong in academic year 2014/2015.

B. Suggestion

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

1. For the school

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

2. For the English teacher

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

3. For the students

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