

ABSTRACT

Asmariyani Pasaribu.NPM 1302050342. ‘‘The Effect of Applying Scientific Approach By Using Cooperative Learning Strategy on Students’ Achievement in Speaking’’; Skripsi: English Education Program of Faculty Teachers’ Training and Education. University of Muhammadiyah Sumatera Utara, Medan. 2017.

This study aims to investigate the significant effects of applying scientific approach by using cooperative learning strategy on students’ achievement in speaking. The objectives of this study is to find out the significant effects of applying scientific approach by using cooperative learning strategy on students achievement in English speaking skill. This research was an experimental research and the was conducted in SMP Pembangunan Nasional Lubuk Pakam, Seventh Grade during 2017/2018 Academic Years. The population were 60 students and the sample were 60students. Random sampling technique was applied to take the sample. Class VII-A was chosen by applying scientific approach by using cooperative learning strategy and Class VII-B by using Teacher method.The instrument in collecting the data was oral test: namely by asking the students to represent the information based on the topic that researcher given and asked them one by one while research listen to them by recording. Then the scores were classified based on speaking creation, they were vocabulary, pronunciation, fluency, comprehension, and grammar. The findings indicated that t-observe (12,28) was higher than t-table (2,22). $\alpha = 0,05$ $df = 58$. The result shows that the hypothesis that there was significant Effect of applying scientific approach by using cooperative learning strategy on students’ achievement in speaking in junior high school.

Keyword: Scientific Approach by Using Cooperative Learning Strategy, Speaking Achievement.

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Medan, Oktober 2017
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CHAPTER I

INTRODUCTION

A. The Background Of The Study

Speaking is an interactive process of constructing meaning that involves producing and receiving and processing information (Brown, 1994; Burns & Joyce, 1997). It's form and meaning are dependent on the context in which it occurs, including the participants themselves, their collective experiences, the physical environment, and the purposes for speaking. It is often spontaneous, open-ended, and evolving. However, speech is not always unpredictable. Language functions (or patterns) that tend to recur in certain discourse situations (e.g., declining an invitation or requesting time off from work), can be identified and charted (Burns & Joyce, 1997). For example, when a salesperson asks "May I help you?" the expected discourse sequence includes a statement of need, response to the need, offer of appreciation, acknowledgement of the appreciation, and a leave-taking exchange. Speaking requires the learners not only know how to produce specific points language such as grammar, pronunciation, or vocabulary, but also they understand when, why, and in what ways to produce a language. A good speakers synthesizes this array of skill and knowledge to succeed in a given speech act.

The students fell bored when they are learning English because they are not mastery in english. The students do not understand when the teacher speaks english in front of the class, so they are not too interest to learn english. Students

always get problems to achievement a great success in learning those skills. The students feel ashamed when they try to speak.

Based on the problems above, English teacher should find out the most effective technique to teach the speaking skill. Teacher can use some kinds of approaches. This approach is needed to help the students to understand when they learn the speaking skill. It also stimulates the students to interest in learning English. So the researcher will apply one kind of approach, it is scientific approach by using cooperative learning speaking skill.

To motivate the students and make them more interest in learning English, Scientific approach is one of the choice. Scientific approach is an approach defined as the usual process of finding out information in science, which involves your ideas by performing experiments and making decision based on the result, this approach has some steps, they are make an observation, form a question, form a hypothesis, conduct an experiment, analyze the data and draw a conclusion. Beside that, it will be more effective when students work together, so cooperative learning is the method which appropriate with this approach. Cooperative learning usually involves the above learners center characteristics as students work together in pairs and group.

Because that explanations the researcher is interested to conduct this research “ The Effect of Applying Scientific Approach by using Cooperative Learning Strategy on student’s Achievement in Speaking at SMP Pembangunan Nasional Lubuk Pakam.

B. The Identification of the Problem

The problems of the research was identified as follows:

1. The student's can not understand when the teacher speaks English.
2. The student's less vocabulary, structure and grammar.
3. The student's can not express how to describe people.

C. The Scope and Limitation

The scope of the study was focused on the effect of scientific approach by using cooperative learning on students' achievement in speaking. This research was limited on describing people.

D. The Formulation of The Problem

The problem of this study are formulated in the following

1. Was there any significant effect of applying scientific approach by using cooperative learning on the students' achievement in speaking at SMP Pembangunan Nasional Lubuk Pakam?
2. How was the students' achievement after applying Scientific Approach by using cooperative learning on the students' achievement in speaking at SMP Pembangunan Nasional Lubuk Pakam?

E. The Objective of The Study

The objectives of this research are follows:

- 1) To find out the significant effect of applying scientific approach by using cooperative learning strategy on students' achievement in speaking at SMP Pembangunan Nasional Lubuk Pakam.
- 2) The students' achievement after applying scientific approach using cooperative learning strategy on the students' achievement in speaking at SMP Pembangunan Nasional Lubuk Pakam.

F. The Significant of the Study

The results of this study are expected to give both theoretical and practical

1. Theoretically

The results of this study was expected to find out the increasing students' speaking skill through scientific approach by using cooperative learning.

2. Practically

- a. English teachers have new approach to teach speaking skill by using scientific approach and can make this approach to be an interesting approach and make the students easy to understand in learning speaking.
- b. For students, they can increase their speaking skill and can make an interaction in english.
- c. For the researcher, this research can use the result of this study to be references and as an exercise to develop the knowledge through the research.

CHAPTER II

REVIEW OF LITERATURE

A. Theoretical Framework

It is important to classify some terms which are used in this research in order to avoid misinterpretation and confusion in comprehending the ideas especially for the readers. Therefore, the following are intended to specify the extent of research.

1. Definition of Speaking

Speaking is an interactive process of constructing meaning that involves producing and receiving and processing information (Brown, 1994; Burns & Joyce, 1997). Its form and meaning are dependent on the context in which it occurs, including the participants themselves, their collective experiences, the physical environment, and the purposes for speaking. It is often spontaneous, open-ended, and evolving. However, speech is not always unpredictable. Language functions (or patterns) that tend to recur in certain discourse situations (e.g., declining an invitation or requesting time off from work), can be identified and charted (Burns & Joyce, 1997). For example, when a salesperson asks "May I help you?" the expected discourse sequence includes a statement of need, response to the need, offer of appreciation, acknowledgement of the appreciation, and a leave-taking exchange. Speaking requires that learners not only know how to produce specific points of language such as grammar, pronunciation, or vocabulary (*linguistic competence*), but also that they understand when, why, and

in what ways to produce language (*sociolinguistic competence*). Finally, speech has its own skills, structures, and conventions different from written language (Burns & Joyce, 1997; Carter & McCarthy, 1995; Cohen, 1996). A good speaker synthesizes this array of skills and knowledge to succeed in a given speech act.

2. Description of Cooperative Learning

Cooperative learning is a student-centered, instructor-facilitated instructional strategy in which a small group of students is responsible for its own learning and the learning of all group members. Students interact with each other in the same group to acquire and practice the elements of a subject matter in order to solve a problem, complete a task or achieve a goal.

Panitz offers a similar definition; he goes on to add that the teacher maintains control of the learning environment, designs learning activities, structures work teams, and, in his view, does not empower students. Kagan (1989) contributes that in cooperative learning the teacher designs the social interaction structures as well as learning activities. Johnson, Johnson and Holubec (1993) state that in cooperative learning students can maximize their own and each other's learning when they work together. Slavin (1996) argues that a critical element of cooperative learning is group team work and team goals.

Cooperative learning is an educational approach which aims to organize classroom activities into academic and social learning experiences. There is much more to cooperative learning than merely arranging students into groups, and it has been described as "structuring positive interdependence." Students must work in groups to complete tasks collectively toward academic goals. Unlike individual

learning, which can be competitive in nature, students learning cooperatively can capitalize on one another's resources and skills (asking one another for information, evaluating one another's ideas, monitoring one another's work, etc.). Furthermore, the teacher's role changes from giving information to facilitating students' learning. Everyone succeeds when the group succeeds. Ross and Smyth (1995) describe successful cooperative learning tasks as intellectually demanding, creative, open-ended, and involve higher order thinking tasks. Cooperative learning has also been linked to increased levels of student satisfaction.

2.1 Elements of Cooperative Learning

Johnson and Johnson (2009) posited five variables that mediate the effectiveness of cooperation. Brown & Ciuffetelli Parker (2009) and Siltala (2010) discuss the *5 basic and essential elements* to cooperative learning:

1. Positive interdependence
 - a. Students must fully participate and put forth effort within their group
 - b. Each group member has a task/role/responsibility therefore must believe that they are responsible for their learning and that of their group
2. Face-to-face promotive interaction
 - a. Members promote each other's success
 - b. Students explain to one another what they have or are learning and assist one another with understanding and completion of assignments
3. Individual and group accountability
 - a. Each student must demonstrate mastery of the content being studied

- b. Each student is accountable for their learning and work, therefore eliminating "social loafing"
4. Social skills
- a. Social skills that must be taught in order for successful cooperative learning to occur
 - b. Skills include effective communication, interpersonal and group skills
 - 1. Leadership
 - 2. Decision-making
 - 3. Trust-building
 - 4. Friendship- development
 - 5. Communication
 - 6. Conflict-management skills
5. Group processing
- a. Group processing occurs when group members (a) reflect on which member actions were helpful and (b) make decision about which actions to continue or change.
 - b. The purpose of group processing is to clarify and improve the effectiveness with which members carry out the processes necessary to achieve the group's goals.

2.2 Purpose of Cooperative Learning

Enhances student cooperation and friendly competition which allows different students with different capabilities to work together and acquire mastery in the topics assigned to them. The students have the independence to have

interactions with different students. The benefit of this activity is that it holds the students responsible for the material they have to prepare.

2.3 Types of Cooperative Learning

1. Formal Cooperative Learning

Formal cooperative learning consists of students working together, for one class period to several weeks, to achieve shared learning goals and complete jointly specific tasks and assignments (Johnson, Johnson, & Holubec, 2009).

Formal cooperative learning groups the teachers' role includes⁴:

- A. Making preinstructional decisions. Teachers (a) formulate both academic and social skills objectives, (b) decide on the size of groups, (c) choose a method for assigning students to groups, (d) decide which roles to assign group members, (e) arrange the room, and (f) arrange the materials students need to complete the assignment. In these preinstructional decisions, the social skills objectives specify the interpersonal and small group skills students are to learn. By assigning students roles, role interdependence is established. The way in which materials are distributed can create resource interdependence. The arrangement of the room can create environmental interdependence and provide the teacher with easy access to observe each group, which increases individual accountability and provides data for group processing.
- B. Explaining the instructional task and cooperative structure. Teachers (a) explain the academic assignment to students, (b) explain the criteria for success, (c) structure positive interdependence, (d) structure individual

accountability, (e) explain the behaviors (i.e., social skills) students are expected to use, and (f) emphasize intergroup cooperation (this eliminates the possibility of competition among students and extends positive goal interdependence to the class as a whole). Teachers may also teach the concepts and strategies required to complete the assignment. By explaining the social skills emphasized in the lesson, teachers operationalize (a) the social skill objectives of the lesson and (b) the interaction patterns (such as oral rehearsal and jointly building conceptual frameworks) teachers wish to create.

- C. Monitoring students' learning and intervening to provide assistance in (a) completing the task successfully or (b) using the targeted interpersonal and group skills effectively. While conducting the lesson, teachers monitor each learning group and intervene when needed to improve taskwork and teamwork. Monitoring the learning groups creates individual accountability; whenever a teacher observes a group, members tend to feel accountable to be constructive members. In addition, teachers collect specific data on promotive interaction, the use of targeted social skills, and the engagement in the desired interaction patterns. This data is used to intervene in groups and to guide group processing.
- D. Assessing students' learning and helping students process how well their groups functioned. Teachers (a) bring closure to the lesson, (b) assess and evaluate the quality and quantity of student achievement, (c) ensure students carefully discuss how effectively they worked together (i.e.,

process the effectiveness of their learning groups), (d) have students make a plan for improvement, and (e) have students celebrate the hard work of group members. The assessment of student achievement highlights individual and group accountability (i.e., how well each student performed) and indicates whether the group achieved its goals (i.e., focusing on positive goal interdependence). The group celebration is a form of reward interdependence. The feedback received during group processing is aimed at improving the use of social skills and is a form of individual accountability. Discussing the processes the group used to function, furthermore, emphasizes the continuous improvement of promotive interaction and the patterns of interaction need to maximize student learning and retention.

2. Informal Cooperative Learning

Informal cooperative learning consists of having students work together to achieve a joint learning goal in temporary, ad-hoc groups that last from a few minutes to one class period (Johnson, Johnson, & Holubec, 2008). During a lecture, demonstration, or film, informal cooperative learning can be used to focus student attention on the material to be learned, set a mood conducive to learning, help set expectations as to what will be covered in a class session, ensure that students cognitively process and rehearse the material being taught, summarize what was learned and precue the next session, and provide closure to an instructional session. The teacher's role for using informal cooperative learning to keep students more actively engaged intellectually entails having focused

discussions before and after the lesson (i.e., bookends) and interspersing pair discussions throughout the lesson. Two important aspects of using informal cooperative learning groups are to (a) make the task and the instructions explicit and precise and (b) require the groups to produce a specific product (such as a written answer). The procedure as follows.

1. **Introductory Focused Discussion:** Teachers assign students to pairs or triads and explain (a) the task of answering the questions in a four to five minute time period and (b) the positive goal interdependence of reaching consensus. The discussion task is aimed at promoting advance organizing of what the students know about the topic to be presented and establishing expectations about what the lecture will cover. Individual accountability is ensured by the small size of the group. A basic interaction pattern of eliciting oral rehearsal, higher-level reasoning, and consensus building is required.
2. **Intermittent Focused Discussions:** Teachers divide the lecture into 10 to 15 minute segments. This is about the length of time a motivated adult can concentrate on information being presented. After each segment, students are asked to turn to the person next to them and work cooperatively in answering a question (specific enough so that students can answer it in about three minutes) that requires students to cognitively process the material just presented. The procedure is:
 - a. Each student formulates his or her answer.
 - b. Students share their answer with their partner.

- c. Students listen carefully to their partner's answer.
- d. The pairs create a new answer that is superior to each member's initial formulation by integrating the two answers, building on each other's thoughts, and synthesizing.

The question may require students to:

- a. Summarize the material just presented.
- b. Give a reaction to the theory, concepts, or information presented.
- c. Predict what is going to be presented next; hypothesize.
- d. Solve a problem.
- e. Relate material to past learning and integrate it into conceptual frameworks.
- f. Resolve conceptual conflict created by presentation.

Teachers should ensure that students are seeking to reach an agreement on the answers to the questions (i.e., ensure positive goal interdependence is established), not just share their ideas with each other. Randomly choose two or three students to give 30 second summaries of their discussions. Such individual accountability ensures that the pairs take the tasks seriously and check each other to ensure that both are prepared to answer. Periodically, the teacher should structure a discussion of how effectively the pairs are working together (i.e., group processing). Group celebrations add reward interdependence to the pairs.

3. Closure Focused Discussion: Teachers give students an ending discussion task lasting four to five minutes. The task requires students to summarize what they have learned from the lecture and integrate it into existing conceptual frameworks. The task may also point students toward what the homework will cover or what will be presented in the next class session. This provides closure to the lecture.

Informal cooperative learning ensures students are actively involved in understanding what is being presented. It also provides time for teachers to move around the class listening to what students are saying. Listening to student discussions can give instructors direction and insight into how well students understand the concepts and material being as well as increase the individual accountability of participating in the discussions.

3. Definition of Scientific Approach

The *scientific method* attempts to explain the natural occurrences (*phenomena*) of the universe by using a logical, consistent, systematic method of investigation, information (*data*) collection, data analysis (*hypothesis*), testing (*experiment*), and refinement to arrive at a well-tested, well-documented, explanation that is well-supported by evidence, called a *theory*. The process of establishing a new scientific theory is necessarily a grueling one; new theories must survive an adverse gauntlet of skeptics who are experts in their particular area of science; the original theory may then need to be revised to satisfy those objections. The typical way in which new scientific

ideas are debated are through refereed scientific journals, such as Nature and Scientific American. (Depending upon the area of science, there are many other journals specific to their respective fields that act as referees.) Before a new theory can be officially proposed to the scientific community, it must be well-written, documented and submitted to an appropriate scientific journal for publication. If the editors of these prestigious publications accept a research article for publication, they are signaling that the proposed theory has enough merit to be seriously debated and scrutinized closely by experts in that particular field of science.

4. Steps of Scientific Method

1. Make an Observation

Scientists are naturally curious about the world. While many people may pass by a curious phenomenon without sparing much thought for it, a scientific mind will take note of it as something worth further thought and investigation.

2. Form a Question

After making an interesting observation, a scientific mind itches to find out more about it. This is in fact a natural phenomenon. If you have ever wondered why or how something occurs, you have been listening to the scientist in you. In the scientific method, a question converts general wonder and interest to a channelled line of thinking and inquiry.

3. **Form a Hypothesis**

A hypothesis is an informed guess as to the possible answer of the question. The hypothesis may be formed as soon as the question is posed, or it may require a great deal of background research and inquiry. The purpose of the hypothesis is not to arrive at the perfect answer to the question but to provide a direction to further scientific investigation.

4. **Conduct an Experiment**

Once a hypothesis has been formed, it must be tested. This is done by conducting a carefully designed and controlled experiment. The experiment is one of the most important steps in the scientific method, as it is used to prove a hypothesis right or wrong, and to formulate scientific theories. In order to be accepted as scientific proof for a theory, an experiment must meet certain conditions – it must be controlled, i.e. it must test a single variable by keeping all other variables under control. The experiment must also be reproducible so that it can be tested for errors.

5. **Analyse the Data and Draw a Conclusion**

As the experiment is conducted, it is important to note down the results. In any experiment, it is necessary to conduct several trials to ensure that the results are constant. The experimenter then analyses all the data and uses it to draw a conclusion regarding the strength of the hypothesis. If the data proves the hypothesis correct, the original question is answered. On the other hand, if the data disproves the hypothesis, the scientific inquiry

continues by doing research to form a new hypothesis and then conducting an experiment to test it. This process goes on until a hypothesis can be proven correct by a scientific experiment.

The whole process is collaborative and is conducted in a clearly documented manner to help other scientists who are doing research in the same field. Throughout history, there are instances where scientists have stopped their research before completing all the **steps of the scientific method**, only to have the inquiry taken up and solved by another scientist interested in answering the same question.

5. Descriptive text

Descriptive text is a text which say what a person or a thing is like. It's purpose to describe and reveal a particular person, place, or thing.

5.1 The purpose/ functions of Descriptive Text

To describes a characteristic for person, place or thing and animal in detail

5.2 The structure of the text/ generic structure

1. Identification

In this part introduces to the subject of the description.

2. Description

In this part gives details of the characteristic features of the subject. It may describe parts, qualities, characteristics, size, physical appearance, ability, habit, daily live, etc.

3. Conclusion (optional)

5.3 Language Features

Descriptive text use:

Simple present tense : if things/ persons described are still alive.

Simple past tense : if things/ persons described do not exist anymore.

This is an example of describing people

My Sister by Daniel Fernandes

I am going to describe my sister, she is very important to me. She is my best friend. I always was next to her I loved that. She loves to talk and to do new friendships especially in the Internet. She is so beautiful, not timid. The thing that I most enjoy in her is the fact that she is a very caring person. I think about her all day long because we always got together doing something interesting or talk about our life and our family. I love her so much .I want her to stay with me here in USA. Sometimes some people think it isn't a real feeling but it is true.

B. Conceptual Framework

Speaking is the skill that we apply by oral. Method Cooperative learning can help students learn simply to get on speaking. It is not like the other skill, it is more complicated than it seems at first and involves more than pronouncing words. In speaking, there is a process of communication, which conveys message from a speaker to listener . Then, a speaker has to deliver the message and listener has to get or interpret the message which consists the information.

Speaking helps a person to express about something about their self, to explore and explain ideas, and finding the right words to present them. Descriptive is a piece of text that description about subject. To increase students achievement in speaking, it is not easy task. Many students find difficulties in speaking. Most of them think it is difficult, and they have no ideas to speak well.

To solve those problems the teacher can use some techniques in teaching. One of them is Scientific approach by Using Cooperative learning. Using this method, the students ability in speaking will increase.

Based on the observation which conducted by the researcher in SMP Pembangunan Nasional Lubuk Pakam in academic year of 2016/2017. They still some problems in studying speaking, they are: They do not understand when the teacher speaks in front of the class, they are not interest to learn english. Based on the students problems and theoretical review of speaking above the researcher believes by using Method Cooperative learning on the students' achievement in speaking will increase, because Method Cooperative learning is supposed very effective.

C. Hypothesis

This research will answer the question about whether yes or no the effect of Scientific Approach by using Cooperative learning Strategy on students' achievement in speaking. To get the answer of question, the researcher propose alternative hyphotesis (Ha) and null hyphotesis (Ho) as below:

H_a : there is a significant effect of applying Scientific Approach by Using Cooperative learning strategy on students' achievement in speaking.

H_o : there is no significant effect of applying Scientific Approach by Using Cooperative learning strategy on students' achievement in speaking.

D. Relevant study

There also many related studies which had been done by other researcher previously, there are the similarities and differences.

1. The research done by Henelawati, Inka Ayu. 2015. "The Effects of Implementing Scientific Approach in KTSP to Help Arjuna Vocational School Students in Mastering Speaking Skill". Yogyakarta: English Language Education Study Program, Sanata Dharma University. Communicative skill, especially speaking skill, can be improved by motivating the students to learn and widely open the opportunity for the students to practice during the teaching learning activity. However, in Arjuna vocational high school (disguised), the students lack in practicing their speaking skill because most of the tasks given by the teacher were covered by written assignments. Lack of having interaction with the teacher and the other students could also lead to cognitive problem because they were not able to experience meaningful learning in constructing their knowledge. Those problems, especially in communicating, become the factors which can influence the students to build up their perception that mastering speaking skill is difficult. The

researcher proposes using Scientific Approach within KTSP in teaching learning process to open the opportunity for the students in practicing speaking skill. In the implementation of Scientific Approach, the students could experience fun and meaningful learning activity through six stages of learning: observing, questioning, experimenting, associating, networking, and creating. In this research, the researcher addresses two research problems, namely (1) What is the students' perception on their problem in mastering speaking skill? (2) What are the effects of implementing Scientific Approach in KTSP on the students' ability in mastering speaking skill? To answer the research problems, the researcher uses the theory of Scientific Approach, theory of perception, and attitude. In order to collect the data, the writer first distributed the questionnaire to 29 students of 11th grade of Arjuna vocational school. The result of the questionnaire was strengthened by the result of FGD (Focus Group Discussion) by interviewing 6 students as the representative of the class. Those two methods were conducted in order to help the writer discover the answer for the first question. Answering the second research question, the researcher presented the result of hypothesis testing of the speaking tests which show an observable improvement in mastering speaking skill. The description of the process of implementing Scientific Approach through the researcher's field notes during the treatment can strengthen the result of the hypothesis testing. It solves the students' problem in mastering speaking skill and changes their perception that speaking is difficult.

2. The researcher done by Ralph J. Lucena¹ and Ariel E. San Jose², the title is “Co-Operative learning in enhancing the speaking skills of students: A Phenomenological approach. Learners bring with them their own negative attitudes and prejudices. Population diversity is becoming more the norm in many places. When there is a mix of learners in the same class there is the potential to diminish negative attitudes and to develop positive ones depending how interaction is structured. Cooperative learning structures can be used to develop constructive and supportive peer relationships. Learning environment in the 21st century must be one in which students should be actively engaged in learning activities and with each other. Students nowadays should be well-rounded in order to increase their competitiveness. Cooperative learning offers a proven and practical means of creating exciting social and engaging classroom environment to help students to master traditional skills and knowledge as well as develop the creative and interactive skills in today’s society.

CHAPTER III
METHOD OF RESEARCH

A. Location and Time

The location of this research was conducted at SMP Pembangunan Nasional Lubuk Pakam, Jalan Inpres Desa Sukamandi Hilir Kec. Pagar Merbau Kab. Deli Serdang. The research was conducted during the academic year 2017/2018. The reason for choosing this school because the researcher found the problem of the students in SMP Pembangunan Nasional Lubuk Pakam. The students always feel bored when they learn and try to speak English and similar research has never been conducted in this school.

B. Population and Sample

1. Population

The population of this research was conducted on seventh grade students of academic years 2017/2018 of SMP Pembangunan Nasional Lubuk Pakam which consist of two parallel classes. VIIA class (30 students), VIIB class (30 students).

Table 3.1
Population

NO	Class	Population
1	VII A	30
2	VII B	30
Total		60

2. Sample

The researcher using random sampling of taking the data. Random sampling was the method responden determining to get sample based on the certain classes which VIIA class (30 students), VIIB class (30 students). The total number of students are 60 students.

In order for all classes to be represented, the samples were taken from all class in this sample.

Table 3.2
Sample

NO	Class	Population	Sample
1	VII A	30	30
2	VII B	30	30
Total		60	60

C. Research Design

The study was conducted by using experimental quantitative research that is a research to test and prove a hypothesis by giving treatment to the samples. This experimental design is to show whether applying scientific approach by using cooperative learning was better approach for the students in learning speaking than lecturing method. The samples of this study consist of two groups; Experimental (VIIA) was taught by using scientific approach and control group (VIIB) was taught by using lecturing method. It can be seen from the following table:

Table 3.3
Research design for experimental group and control group

Group	Pre-test	Treatment	Post-test
Experimental (x) (VIIA)	√	Using scientific approach by cooperative learning	√
Control (y) (VIIB)	√	Using lecturing method	√

Based on the table 3.3, experimental (X) is the class which received by applying scientific approach using cooperative learning in speaking, and control (Y) is the class which received by using lecturing method in teaching speaking.

D. The instrument of Research

For collecting the data, the researcher was made a test which was suitable to the level of the seventh grade students. The data of this research was collected by using oral test in which student was tested individually after discussing about the topic that was about describing people.

Funochiaro and Sako (1984: 223-228) stated that “there are four categories evolution scale namely vocabulary, accuracy, pronunciation and fluency. Fulcher (2003: 12) score these speaking ability by using foreign service institute (FSI) weighting scale as follows:

Table 3.4
FSI Weight Scale
The Four Components to Evaluate Speaking

A. vocabulary (25)	
Level	Explanation
19-25	Very good: rarely has trouble
13-18	Good:sometimes uses inappropriate terms about language
7-12	Fair : frequent uses wrong words speech Limited to simple vocabulary
1-6	Unsatisfactory: very limitedvocabulary and make the comprehension quite difficult
B.accuracy (25)	
Level	Explanation
19-25	Very good: few noticeable errors
13-18	Good:occasionally grammatical errors Which do not obscure meaning
7-12	Fair:error of the basic structure. Meaning occasionally obscure by Grammatical errors
1-6	Unsatisfactory: usage definitely Unsatisfactory,frequently needs to rephrase construction or restrict himself To basic structure
C.pronunciation (25)	
Level	Explanation
19-25	Very good: understandable
13-18	Good: few noticeableerrors
7-12	Fair: errors of basic pronunciation
1-6	Unsatisfactory: hard to understand Because of sound accent pitch Difficulties and incomprehensible
D. fluency(25)	
Level	Explanation
19-25	Very good: understandable
13-18	Good: speechisgenerally natural
7-12	Fair: some difinite stumbling but manage to rephrase and continue
1-6	Unsatisfactory: speech of speech and Length of utterances are far bellow Normal, long pauses utterances left unfinished

E. Technique of Collecting Data

The data of this study was collected by using the test. To collect the data of the research was used pre-test and post test which was given to the experimental group and control group.

1. Pre-Test

Pre-test is administrated to the sample before doing the treatment. Pre-test was given to experimental and control group. It is used to measured students, ability before applying the treatment. Pre-test consist of oral test, in oral test the students was asked to make conversation about describing people.

2. Treatment

Meeting	Experimental group	Control group
1 st (first)	<ul style="list-style-type: none"> • teacher greets the students to open the class • teacher gives pre-test • teacher collects the answer sheets of the students • teacher was calculated the answer 	<ul style="list-style-type: none"> • teacher greets the students to open the class • teacher gives pre-test • teacher collects the answer sheets of the students • teacher was calculated the score
2 nd (second)	<ul style="list-style-type: none"> • teacher asked the students work in pairs and made some groups. One group consist of 5 person. • Teacher distributed the material about describing people. • Teacher showed to the students some pictures. • Teacher asked the students to observe the pictures and stimulate the students to made some question about 	<ul style="list-style-type: none"> • teacher distributed the material about describing people. • Teacher gives the examples about describing people • Teacher asked students whether are already understood or not • Teacher asked the students to make conversation about

	<p>what they want to know the pictures. For examples: how does she look like.</p> <ul style="list-style-type: none"> • Teacher was asked the students to find out the answer of their questions. It can be directly answer by the other students or they can discuss before. • After that, the teacher gives the pictures to every group and doing the experiment. • Students will do the experiment, describing people based on the pictures that is given by the teacher, for example about her/his hair, nose, that include in physical and appearance. • teacher asked the students to present the informations which they gotten in front of the class. 	<p>describing people based on the picture that was given</p> <ul style="list-style-type: none"> • Teacher asked the studentrs to come in front of the class to read their conversation • Teacher was made data analysis.
3 rd (third)	<ul style="list-style-type: none"> • Same as the second meeting but different pictures 	<ul style="list-style-type: none"> • Same as the second meeting but different exercises
4 th (fourth)	<ul style="list-style-type: none"> • Teacher was given the post-test • teacher collected the answer sheet of the students • teacher calculated the score 	<ul style="list-style-type: none"> • teacher was given the post-test • teacher collected the answer sheet of the students • teacher calculated the score

3. Post-test

After having the treatment, the post-test was given to the students. The post-test was same as the pre-test. The post-test was the final test in this research, especially in measuring the treatment, whether it was significant or not, it means to know whether the treatment give the effect or not on the students' achievement

in speaking. Also, in the experimental and control group, a post-test was administrated. The administrating of the post-test was mean to find out the differencess scores of both experimental and control group before and after the treatment.

F. The Technique of Data Analysis

After collecting the data from the test, the data analyzed by following procedure:

1. Scoring the students' answer for value of the test.
2. Listing their score in two tables, first for the experimental class scores and the second for the control class scores .
3. Calculating the total score post-test in experimental group and control group :

a. $y = a + b$ where a and b were get by:

$$a = \frac{(\sum Y)(\sum X) - (\sum X)(\sum XY)}{N(\sum Y^2) - (\sum Y)^2}$$

$$b = \frac{N(\sum XY) - (\sum X)(\sum Y)}{N(\sum Y^2) - (\sum Y)^2}$$

b. Determiniting coeficient r^2 by formulation

(Sudjana,2005)

$$r = \frac{b\{N(\sum XY) - (\sum X)(\sum Y)\}}{N(\sum Y^2) - (\sum Y)^2}$$

c. The stastical hypothesis could be determined by using:

$$t = \frac{r\sqrt{n-2}}{\sqrt{1-r^2}}$$

$$D = R^2 \times 100\%$$

G. Statistical Hypothesis

In this research, statistical hypothesis use to describe whether the hypothesis accept or reject. The statistical hypothesis formula.

$$H_a : T_{\text{observe}} > T_{\text{table}}$$

$$H_o : T_{\text{observe}} < T_{\text{table}}$$

H_a : There was the effect of scientific approach by using cooperative learning strategy on students' achievement in descriptive speaking (the hypothesis was accept)

H_o : There was no effect of scientific approach by using cooperative learning strategy on students' achievement in descriptive speaking (the hypothesis was reject)

CHAPTER IV

DATA COLLECTION AND DATA ANALYSIS

A. Data Collection

The data was collected by giving oral test to the students. In this research, the samples were divided into two groups, the experimental group and control group. Each group was given a pre-test and post-test.

The data of this study was the scores of pre-test and post-test of the two groups, experimental and control group, as seen in appendix 1 table 4.1. The data in table 4.1 showed that the lowest score of the pre-test in the experimental group was 57 while the highest score of the pre-test was 79. In this case the students' score in speaking was calculated based on oral test, they are vocabulary, pronunciation, fluency, comprehension, and grammar.

The data in the table appendix 2 table 4.2 showed that lowest score of the pre-test in the experimental group was 70 while score of the post-test was 87. In this case the students' score speaking was calculated based on oral test. As seen in appendix 2 table 4.2

The data in appendix 3 table 4.3 showed that the lowest score of the pre-test in the control group was 55 while the highest score of the pre-test was 66.

Data in appendix 4 table 4.4 showed that the lowest score of the post-test in the control group was 65 while the highest score of the post test was 76. In this case the students' score in speaking was calculated based on oral test. Note P: pronunciation, G: grammar, V: vocabulary, C: comprehension, and F: fluency.

Category	Experimental group		Control group	
	Pre-test	Post-test	Pre-test	Post-test
N	30	30	30	30

M	63,13	75,1	60,73	74,86
Highest	79	87	66	75
Lowest	57	70	54	65

B. The Data Analysis

Based on the data, as seen in appendix 1 table 4.1 and appendix 2 table 4.2 showed that the different scores between pre-test and post-test in both experimental and control group, as presented in appendix 5 table 4.5.

Appendix 5 table 4.5 showed that the total score pre-test in experimental group was 1954 while the total score of post-test was 2253.

Appendix 6 table 4.6 showed that the total score pre-test in control group was 1822 while the total score of post-test was 2246.

Tabel general perhitungan

	Class experimental	Class control
M	8,9	9,5
S	36,93	193,74
SD	48,93	52,02

C. Testing The Hypotesis

- a. The equation of linear regression
- b. Coeficient r
- c. Examination the statistic hypothesis

H_a : There is significant effect of scientific approach by using cooperative learning strategy on students' achievement in speaking.

H_o : There is no significant effect of scientific approach by using cooperative learning strategy on students' achievement in speaking.

The statistical hypothesis could be determined by using :

$$t = \frac{\sqrt{n-2}}{\sqrt{1-r^2}}$$

with a criteria examination a H_0 is accepted if $t_{\text{observed}} > T_{\text{table}}$ or H_0 is rejected if $t_{\text{observed}} > T_{\text{table}}$ with degree of freedom of $df = N-2 = 58$, $\alpha = 5\% = 0,05$

Based on the calculation, where $t_{\text{observed}} > T_{\text{table}}$ ($12,28 > 2,22$) it could be concluded that H_0 was rejected. Its means that H_0 was accepted or “ there is significant Effect of Applying Scientific Approach by Using Cooperative Learning Strategy on Students’ Achievement In Speaking Skill”.

The percentage of The Effect of peer Assisted Learning Technique on The Students’ Speaking Achievement.

In determining of the percentage the Effect of Applying Scientific Approach by Using Cooperative Learning Strategy on Students’ Achievement In Speaking Skill, formula was use :

$$\begin{aligned} D &= r^2 \times 100\% \\ &= 0,724 \times 100\% \\ &= 72,4\% \\ X &= 100\% - 72,4\% \\ &= 27,6\% \end{aligned}$$

Its means that the Effect of Applying Scientific Approach by Using Cooperative Learning Strategy on Students’ Achievement In Speaking Skill

was 72,4% and 27,6% was influence by the other factor.

D. Research Finding

After the Pre- test and Post- test were conducted, then the findings could be report us follow:

1. There is the significant Effect of Applying Scientific Approach by Using Cooperative Learning Strategy on Students' Achievement In Speaking Skill, which was proven from the result of the test tobserved $> T_{table}$ or $12,28 > 2,22$.
2. The percentage of the Effect of Applying Scientific Approach by Using Cooperative Learning Strategy on Students' Achievement In Speaking Skill was 72,4% and 27,6% was influenced by another factor.

CHAPTER V

CONCLUSION AND SUGGESTIONS

A. Conclusion

Based on findings and analyzing the data, so the researcher could make the conclusion as follows:

1. There was significant effect of applying scientific approach by using cooperative learning strategy on students' achievement in speaking in learning describing people. Which is

proved from the result test $t_{\text{observed}} > T_{\text{table}}$ or $12,28 > 2,22$ or $\alpha = 0,05$ $df = 58$. It means, null hypothesis was rejected and the alternative hypothesis was accepted.

2. The percentage of the effect of applying scientific approach by using cooperative learning strategy on students' achievement in speaking in learning describing people. Scientific approach by using cooperative learning strategy on the students' achievement in speaking was 72,4% and 27,6% was influenced by another factor.

B. Suggestions

Based on the result of this study, suggestion put forward as follows:

1. For the students' achievement in speaking especially describing people, so the English teachers can apply Scientific approach by using Cooperative Learning Strategy because this can help teacher.
2. The English teachers can teach the students how to express their ideas or thoughts in speak systematically. Because applying Scientific approach by using Cooperative Learning Strategy has point of v 44 its speak systematically.
3. For the students', the 44 ible to speak in English. At least a simple text, especially describing people.

REFERENCE

- Arikunto S., 2013. *Prosedur Penelitian : Suatu Pendekatan Praktik / Suharsimi Arikunto*-cet. 15 - Jakarta: Rineka cipta. 2016.
- Buehl, D. 2002. *Classroom Strategies for Interactive Learning*. Wisconsin State Writing Association.
- Brown, H. Douglas. 2001. *Language Assessment Principle and Classroom Practice*. New York: Longman
- Brown, H. Douglas. 2001. *Principle of Language Learning and Teaching. Fourth edition. White-plains*. New York: Longman
- Brown, H.D. (1994). Teaching by principles: an interactive approach to language pedagogy. Englewood Cliffs, NJ: Prentice Hall Regents.*
- Brown, H., & Ciuffetelli, D.C. (Eds.). (2009). *Foundational methods: Understanding teaching and learning*. Toronto: Pearson Education
- Burns, A., & Joyce, H. (1997). Focus on speaking. Sydney: National Center for English Language Teaching and Research.*

- Carter, R. & McCarthy, M. (1995). *Grammar and spoken language*. *Applied Linguistics*, 16 (2), 141-158.
- Cohen, A. (1996). *Developing the ability to perform speech acts*. *Studies in Second Language Acquisition*, 18 (2), 253-267.
- Johnson, K. 2001. *An Introducing to Foreign Language Learning and Teaching*. Publishing Group University of Michigan: Longman.
- Johnson, D.W. (2009). *Reaching out: Interpersonal effectiveness and self-actualization (10th ed.)*. Boston: Allyn & Bacon.
- Johnson, D.W., & Johnson, F. (2009). *Joining together: Group theory and group skills (10th ed.)*. Boston: Allyn & Bacon.
- Johnson, D. W., & Johnson, R. T. 1993. *Implementing cooperative learning*. *Education Digest*, 58(8), 62.
- Kagan, S. 1989. *The structural approach to cooperative learning*. *Educational Leadership*, Dec 89/ Jan 90, 12-15.
- Ross, J., & Smythe, E. 1995. Differentiating cooperative learning to meet the needs of gifted learners: A case for transformational leadership. *Journal for the Education of the Gifted*, 19, 63-82.
- Siltala, R. (2010). *Innovativity and e learning in business life and teaching*. University of Turku.
- Siltala, R., Suomala, J., Taatila, V. & Keskinen, S. (2007). *Cooperative Learning in Finland and in California during the innovation process*. In Andriessen D. (Eds.) (2007). *Intellectual Capital*. Haarlem: Inholland University.
- Slavin, R. E. 1996. *Research on cooperative learning and achievement: What we know, what we need to know*. *Contemporary Educational Psychology* 21, 43-69.
- Sugiyono. (2010). *Statistika Untuk Penelitian*. Bandung: Alfabeta
- Sugiyono. 2016. *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta
- 23th-of-September-2017
- <http://www.cmu.edu/teaching/solveproblem/strat-dontparticipate/groundrulespdf>

Appendix 1

Table 4.1

The scores of pre-test in Experimental Group

No	Students' Initial Names	The Components to Evaluate					Total
		Vocab	Compre	pronun	Fluency	Gram	
1	RRD	14	12	12	14	15	67
2	MR	12	11	11	13	13	60
3	IS	11	12	10	13	13	59
4	WD	13	14	12	15	14	68
5	AF	16	13	14	17	14	74
6	SE	15	12	13	14	13	67
7	SCW	12	11	11	12	12	58
8	SR	16	14	15	17	16	78
9	EAS	13	11	12	12	13	61

10	SF	17	15	15	16	16	79
11	MPS	14	10	13	16	12	65
12	MA	13	12	14	15	12	66
13	ADP	11	11	10	13	12	57
14	SG	15	14	12	14	13	68
15	SP	17	15	15	16	16	79
16	RK	13	12	10	12	11	58
17	AN	15	14	12	14	12	67
18	DP	13	11	12	13	12	61
19	S	14	12	12	12	11	61
20	MDW	13	11	12	11	11	58
21	DYS	15	12	13	14	12	66
22	AFS	16	13	15	16	14	74
23	DR	14	11	13	14	12	64
24	ADW	11	10	11	13	12	57
25	APH	17	15	15	15	14	76
26	AA	15	12	12	14	13	66
27	AN	12	10	12	13	12	59
28	AR	14	12	11	12	12	61
29	BYP	14	11	12	11	12	60
30	CA	13	12	11	13	11	60
Total							$\sum T_i=1954$

Appendix 2

Table 4.2
The Score of Post-test in Experimental Group

No	Students' Initial Names	The Components to Evaluate					Total
		Vocab	compre	pronun	fluen	Gram	
1	RRD	16	15	14	16	18	79
2	MR	14	15	14	17	16	76
3	IS	15	15	14	15	15	74
4	WD	15	16	15	15	14	75
5	AF	17	16	16	17	15	81
6	SE	15	15	14	14	16	74
7	SCW	15	15	14	12	13	72
8	SR	17	17	15	19	16	84
9	EAS	14	14	12	16	14	70
10	SF	19	17	15	16	17	84
11	MPS	17	14	16	17	14	78
12	MA	13	15	16	16	13	73
13	ADP	14	15	15	13	14	71
14	SG	17	16	14	16	14	77
15	SP	19	17	16	18	17	87
16	RK	16	13	14	15	14	72
17	AN	15	15	14	16	13	73
18	DP	13	14	12	15	16	70
19	S	14	16	15	15	14	74
20	MDW	15	14	14	16	13	72
21	DYS	16	14	14	15	14	73
22	AFS	16	13	15	16	14	74

23	DR	17	13	15	15	14	74
24	ADW	15	13	14	16	14	72
25	APH	19	15	18	17	15	84
26	AA	17	14	15	14	14	74
27	AN	13	14	14	16	14	71
28	AR	15	15	13	14	15	72
29	BYP	16	13	13	14	14	70
30	CA	14	13	14	16	16	73
Total							$\Sigma T_1=2253$

Appendix 3

Table 4.3
The Score of Pre-test in Control Group

No	Students' Initial Names	The Components to Evaluate					Total
		Vocab	compre	pronun	fluen	Gram	
1	AFR	13	11	11	13	12	60
2	DR	11	10	12	12	10	55
3	AS	11	12	11	12	13	59
4	GH	12	12	13	15	14	66
5	RH	12	11	12	13	15	63
6	S	13	11	13	14	13	64
7	KDS	13	12	12	13	14	64
8	SK	14	13	11	11	12	61

9	WA	13	12	12	10	10	57
10	AD	12	12	13	14	10	61
11	FH	12	14	13	13	14	66
12	ADG	12	13	15	13	11	64
13	AH	12	12	12	13	14	63
14	SP	11	12	11	13	12	59
15	WA	14	13	11	11	12	61
16	SE	11	13	12	15	12	63
17	WWH	11	13	14	11	11	60
18	RG	13	14	12	11	10	60
19	NS	12	13	11	12	14	62
20	WDS	12	14	12	12	13	63
21	YS	12	11	10	12	10	55
22	FA	14	13	12	12	13	64
23	SR	14	13	11	12	11	61
24	AWS	12	13	11	10	10	54
25	BM	14	12	13	13	14	66
26	MG	12	12	10	10	11	55
27	DL	11	14	14	12	11	62
28	LT	13	12	13	13	12	63
29	ASP	12	10	11	10	12	55
30	RSD	12	13	10	10	11	56
Total							$\sum T_i=1822$

Appendix 4

Table 4.4
The Score of Post-test in Control Group

No	Students' Initial Names	The Components to Evaluate					Total
		Vocab	compre	pronun	fluen	Gram	
1	AFR	14	15	13	17	15	74
2	DR	14	13	14	16	14	71
3	AS	13	14	13	14	15	69
4	GH	14	13	15	17	16	75
5	RH	12	13	13	14	16	68
6	S	13	14	15	16	15	73
7	KDS	14	14	14	14	16	72
8	SK	15	13	13	12	15	68
9	WA	16	15	13	14	13	71
10	AD	14	13	14	15	14	70
11	FH	14	16	15	15	16	76
12	ADG	14	15	16	14	13	72
13	AH	13	13	13	14	14	67
14	SP	14	14	14	15	15	72
15	WA	15	16	13	13	16	73
16	SE	13	14	13	16	15	71
17	WWH	14	15	15	14	16	74
18	RG	15	15	14	13	13	70
19	NS	14	13	13	14	16	70
20	WDS	14	15	13	13	15	70
21	YS	13	13	12	14	14	66

22	FA	14	15	12	13	14	68
23	SR	16	16	12	13	14	71
24	AWS	13	15	13	12	15	68
25	BM	15	14	14	15	14	72
26	MG	13	14	12	13	13	65
27	DL	13	14	13	14	15	69
28	LT	12	13	14	13	14	67
29	ASP	13	13	15	13	14	68
30	RSD	13	14	14	12	14	67
Total							$\sum T_1=2107$

Appendix 5

Table 4.5

The Differences Scores of Pre-test and Post-test in Experimental Group

No	Students' Initial Names	Scores				$X=(T_2-T_1)$
		Pre-test	T_1^2	Post-test (T_2)	T_2^2	
1	RRD	67	4489	79	6241	12
2	MR	60	3600	76	5776	16
3	IS	59	3481	74	5476	15
4	WD	68	4624	75	5625	7
5	AF	74	5476	81	6561	7
6	SE	67	4489	74	5476	7

7	SCW	58	3364	72	5184	14
8	SR	78	6084	84	7056	6
9	EAS	61	3721	70	4900	9
10	SF	79	6241	84	7056	5
11	MPS	65	4225	78	6084	13
12	MA	66	4356	73	5329	7
13	ADP	57	3249	71	5041	14
14	SG	68	4624	77	5929	9
15	SP	79	6241	87	7569	8
16	RK	58	3364	72	5184	14
17	AN	67	4489	73	5329	6
18	DP	61	3721	74	5476	13
19	S	61	3721	87	7569	26
20	MDW	58	3364	72	5184	14
21	DYS	66	4356	73	5329	7
22	AFS	74	5476	74	5476	0
23	DR	64	4096	74	5476	10
24	ADW	57	3249	72	5184	15
25	APH	76	5776	84	7056	8
26	AA	66	4356	74	5476	8
27	AN	59	3481	71	5041	12
28	AR	61	3721	72	5184	11
29	BYP	60	3600	70	4900	10
30	CA	60	3600	73	5329	13
Total		$\sum T_1 =$ 1954	$\sum (T_1)^2 =$ 128634	$\sum T_2 =$ 2253	$\sum (T_2)^2 =$ 172496	$\sum (T_2 - T_1) =$ 268

Appendix 6

Table 4.6

The Differences Scores of Pre-test and Post-test in Control Group

No	Students' Initial Names	Scores				X=(T ₂ -T ₁)
		Pre-test	T ₁ ²	Post-test (T ₂)	T ₂ ²	
1	AFR	60	3600	74	5476	14
2	DR	55	3025	71	5041	16
3	AS	59	3481	69	4761	10
4	GH	66	4356	75	5625	9
5	RH	63	3969	68	4624	5
6	S	64	4096	73	5329	9
7	KDS	64	4096	72	5184	8
8	SK	61	3721	68	4624	7
9	WA	57	3249	71	5041	14
10	AD	61	3721	70	4900	9
11	FH	66	4356	76	5776	10
12	ADG	64	4096	72	5184	8
13	AH	63	3969	67	4489	4
14	SP	59	3481	72	5184	13
15	WA	61	3721	73	5329	12
16	SE	63	3969	71	5041	8
17	WWH	60	3600	74	5476	14
18	RG	60	3600	70	4900	10
19	NS	62	3844	70	4900	8

20	WDS	63	3969	70	4900	7
21	YS	55	3025	66	4356	11
22	FA	64	4096	68	4624	4
23	SR	61	3721	71	5041	10
24	AWS	54	2916	68	4624	14
25	BM	66	4356	72	5184	6
26	MG	55	3025	65	4225	10
27	DL	62	3844	69	4761	7
28	LT	63	3969	67	4489	4
29	ASP	55	3025	68	4624	13
30	RSD	56	3136	67	4489	11
Total		$\sum T_1 =$ 1822	$\sum (T_1)^2 =$ 106936	$\sum T_2 =$ 2246	$\sum (T_2)^2 =$ 148195	$\sum (T_2 - T_1) =$ 285

Appendix 7

Table 4.7

The calculation of table

No	X	Y	X ²	Y ²	XY
1	79	74	6241	5476	5846
2	76	71	5776	5041	5396
3	74	69	5476	4761	5106
4	75	75	5625	5625	5625
5	81	68	6561	4624	5506
6	74	73	5476	5329	5402

7	72	72	5184	5184	5184
8	84	68	7056	4624	5712
9	70	71	4900	5041	4970
10	84	70	7056	4900	5880
11	78	76	6084	5776	5928
12	73	72	5329	5184	5256
13	71	67	5041	4489	4757
14	77	72	5929	5184	5544
15	87	73	7569	5329	6351
16	72	71	5184	5041	5112
17	73	74	5329	5476	5402
18	74	70	5476	4900	5180
19	87	70	7569	4900	6090
20	72	70	5184	4356	5040
21	73	66	5329	4624	4818
22	74	68	5476	5041	5032
23	74	71	5476	4624	5254
24	72	68	5184	5184	4896
25	84	72	7056	4624	6084
26	74	65	5476	4225	4810
27	71	69	5041	4761	4899
28	72	67	5184	4489	4824
29	70	68	4900	4624	4760
30	73	67	5329	4489	4891
Total	$\sum X = 2253$	$\sum Y = 2246$	$\sum X^2 = 172496$	$\sum Y^2 = 148195$	$\sum XY = 157555$

The Calculation in Experimental Group

a. The calculation for Pre-test in experimental Group

1. Mean

$$\begin{aligned} M (T_2-T_1) &= \frac{\sum T_1}{N} \\ &= \frac{1954}{30} \\ &= 65,13 \end{aligned}$$

2. Variances

$$\begin{aligned} S^2 &= \sum T_2^2 - \frac{(T_1)^2}{N} \\ &= 128634 - \frac{(1954)^2}{30} \\ &= 128634 - \frac{3818116}{30} \\ &= 128634 - 127270 \\ S^2 &= 1364 \\ S &= \sqrt{1364} \\ &= 36,93 \end{aligned}$$

3. Standar Deviation

$$\begin{aligned} SD &= \sqrt{\frac{\sum\{(T_1)^2\}^2}{N}} \\ &= \sqrt{\frac{(128634)^2}{30}} \end{aligned}$$

$$\begin{aligned}
 &= \sqrt{\frac{16546705956}{30}} \\
 &= \sqrt{551556865} \\
 &= 23,48
 \end{aligned}$$

b. The Calculation for Post-test in Experimental Group

1. Mean

$$\begin{aligned}
 M (T_2-T_1) &= \frac{\sum T_2}{N} \\
 &= \frac{2253}{30} \\
 &= 75,1
 \end{aligned}$$

2. Variances

$$\begin{aligned}
 S^2 &= \sum T_2^2 - \frac{(T_2)^2}{N} \\
 &= 172496 - \frac{(2253)^2}{30} \\
 &= 172496 - \frac{5076009}{30} \\
 &= 172496 - 169200 \\
 S^2 &= 3296 \\
 S &= \sqrt{3296} \\
 &= 57,41
 \end{aligned}$$

3. Standar Deviation

$$SD = \sqrt{\frac{\sum \{(T_2)^2\}^2}{N}}$$

$$\begin{aligned}
&= \sqrt{\frac{(172496)^2}{30}} \\
&= \sqrt{\frac{29754870016}{30}} \\
&= \sqrt{991829000} \\
&= 31,49
\end{aligned}$$

c. The calculation for Total Pre-test and Post-test in Experimental Group

1. Mean

$$\begin{aligned}
M(T_2 - T_1) &= \frac{\sum(T_2 - T_1)}{N} \\
&= \frac{268}{30} \\
&= 8,9
\end{aligned}$$

2. Standard Deviation

$$\begin{aligned}
SD &= \frac{(\sum T_2 - T_1)^2}{N} \\
&= \sqrt{\frac{(268)^2}{30}} \\
&= \sqrt{\frac{71824}{30}} \\
&= \sqrt{2394} \\
&= 48,93
\end{aligned}$$

The Calculation in Control Group

a. The calculation for Pre-test Control Group

1. Mean

$$\begin{aligned} M(T_2-T_1) &= \frac{\sum T_1}{N} \\ &= \frac{1822}{30} \\ &= 60,73 \end{aligned}$$

2. Variances

$$\begin{aligned} S^2 &= \sum T_2^2 - \frac{(T_1)^2}{N} \\ &= 148195 - \frac{(1822)^2}{30} \\ &= 148195 - \frac{3319684}{30} \\ &= 148195 - 110656 \\ S^2 &= 37539 \\ S &= \sqrt{37539} \\ &= 193,74 \end{aligned}$$

3. Standar Deviation

$$\begin{aligned} SD &= \sqrt{\frac{\sum\{(T_1)^2\}^2}{N}} \\ &= \sqrt{\frac{(106936)^2}{30}} \\ &= \sqrt{\frac{11435308096}{30}} \\ &= \sqrt{381176936} \end{aligned}$$

$$= 19523,75$$

b. The Calculation for Post-test in Control Group

1. Mean

$$\begin{aligned} M (T_2-T_1) &= \frac{\sum T_2}{N} \\ &= \frac{2246}{30} \\ &= 74,86 \end{aligned}$$

2. Variances

$$\begin{aligned} S^2 &= \sum T_2^2 - \frac{(T_2)^2}{N} \\ &= 148195 - \frac{(2246)^2}{30} \\ &= 148195 - \frac{5044516}{30} \\ &= 168150 - 148195 \\ S^2 &= 19955 \\ S &= \sqrt{19955} \\ &= 141,26 \end{aligned}$$

3. Standar Deviation

$$\begin{aligned} SD &= \sqrt{\frac{\sum\{(T_2)^2\}^2}{N}} \\ &= \sqrt{\frac{(172496)^2}{30}} \\ &= \sqrt{\frac{29754870016}{30}} \end{aligned}$$

$$= \sqrt{991829000}$$

$$= 31,49$$

c. The calculation for Total Pre-test and Post-test in Control Group

1. Mean

$$M (T_2 - T_1) = \frac{\sum (T_2 - T_1)}{N}$$

$$= \frac{285}{30}$$

$$= 9,5$$

2. Standard Deviation

$$SD = \frac{(\sum T_2 - T_1)^2}{N}$$

$$= \sqrt{\frac{(285)^2}{30}}$$

$$= \sqrt{\frac{81225}{30}}$$

$$= \sqrt{2707}$$

$$= 52,02$$

C. Testing The Hypothesis

a. The Equation of linear Regression

$y = a + b$ where a and b got by:

$$a. = \frac{(\sum Y)(\sum X^2) - (\sum X)(\sum XY)}{N(\sum X^2) - (\sum X)^2}$$

$$= \frac{(2246)(172496) - (2253)(157555)}{30(172496) - (2253)^2}$$

$$= \frac{387426016 - 354971415}{5174880 - 5076009}$$

$$= \frac{32454601}{98871}$$

$$= 328,25$$

$$b = \frac{N(\sum XY) - (\sum X)(\sum Y)}{N(\sum X^2) - (\sum X)^2}$$

$$= \frac{60(157555) - (2253)(2246)}{60(172496) - (2253)^2}$$

$$= \frac{9453300 - 5060238}{10349760 - 5076009}$$

$$= \frac{4393062}{5273751}$$

$$= 0,83$$

$$Y = a + b$$

$$= 328,25 + 0,83$$

$$= 329,08$$

b. Coeficient r

$$r^2 = r_2 \frac{b\{N(\sum XY) - (\sum X)(\sum Y)\}}{N(\sum Y^2) - (\sum Y)^2}$$

$$= \frac{0,83(60)(157555) - ((2253)(2246))}{60(148195) - (2246)^2}$$

$$= \frac{7846239 - 5060238}{8891700 - 5044516}$$

$$= \frac{2786001}{3847184}$$

$$= 0,724$$

$$r = \sqrt{0,724}$$

$$= 0,850$$

c. Examination the statistic hypothesis.

The statistical hypothesis could be determined by using:

$$t = \frac{\sqrt{n-2}}{\sqrt{1-r^2}}$$

$$t_{\text{observed}} = \frac{\sqrt{n-2}}{\sqrt{1-r^2}}$$

$$= \frac{0,850 \sqrt{60-2}}{\sqrt{1-0,850^2}}$$

$$= \frac{0,850 \sqrt{58}}{\sqrt{1-0,7225}}$$

$$= \frac{0,85 (7,6)}{0,526}$$

$$= \frac{6,46}{0,526}$$

$$= 12,28^{df}$$

$$T_{\text{table}} = t \left\{ \left(1 - \frac{1}{2} 0,05\right) \right\}^{df}$$

$$= t \left\{ \left(1 - \frac{1}{2} 0,05\right) \right\}^{58}$$

$$= t \left\{ (1 - 0,025) \right\}^{58}$$

= 2,22



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Website: <http://www.fkip.umsu.ac.id> E-mail: fkip@umsu.ac.id

Form : K - 1

Da Yth: Bapak Ketua & Sekretaris
Program Studi Pendidikan Bahasa Inggris
UMSU

ISI: PERMOHONAN PERSETUJUAN JUDUL SKRIPSI

Yang hormat yang bertanda tangan di bawah ini:

Mahasiswa : Asmariyani Pasaribu
NIM : 1302050342
Studi : Pendidikan Bahasa Inggris
Kumulatif : 133 SKS

IPK= 3,21

Tujuan Sekret. Studi	Judul yang Diajukan	Disahkan oleh Dekan Fakultas
	The Effect of Scientific Approach by Using Cooperative Learning on Students' Achievement in Speaking	
	An Analysis of Student' Errors Dealing with Passive Voice	
	Reference of Ella's Utterances in Cinderella	

Demikianlah permohonan ini saya sampaikan untuk dapat pemeriksaan dan penyesuaian serta pengesahan, atas kesediaan Bapak saya ucapkan terima kasih.

Medan, 14 Juni 2017
Hormat Pemohon.

Asmariyani Pasaribu

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2. Lembar 3 (tiga) untuk Ketua/Sekretaris Program Studi
3. Lembar 3 (tiga) untuk Ketua/Mahasiswa yang bersangkutan

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Form K-2

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 Pendidikan Bahasa Inggris

m W/r, W/h

yang bertanda tangan dibawah ini:

Nama : Asmariyani Pasaribu
 NIM : 1302050342
 Jurusan : Pendidikan Bahasa Inggris

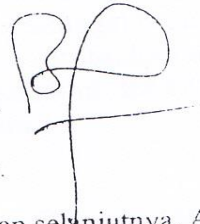
mohonan persetujuan proyek proposal/risalah/makalah/skripsi sebagai tercantum
 dengan judul sebagai berikut:

The Effect of Scientific Approach by Using Cooperative Learning
 on Students' Achievement in Speaking

mengusulkan/ menunjuk Bapak/ Ibu:

Asuma Nst, SS, M.Hum

Ace 20/06-2017



Pembimbing Proposal/Risalah/Makalah/Skripsi saya.

Permohonan ini saya sampaikan untuk dapat pengurusan selanjutnya. Akhirnya atas
 kesediaan Bapak/ Ibu saya ucapkan terima kasih.

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 Hormat Pemoohon,



Asmariyani Pasaribu

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Untuk Ketua / Sekretaris Prog Studi

Untuk Mahasiswa yang Bersangkutan

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: 3737 /IL3-AU /UMSU-02/F/2017

: Pengesahan Proyek Proposal
 Dan Dosen Pembimbing

*Bismillahirrahmanirrahim
 Assalamu'alaikum Wr. Wb*

Dekan Fakultas Keguruan dan Ilmu Pendidikan Universitas Muhammadiyah Sumatera Utara me netapkan proyek proposal/risalah/makalah/skripsi dan dosen pembimbing bagi mahasiswa yang tersebut di bawah ini :

Nama : **ASMARIYANI PASARIBU**
 N P M : 1302050342
 Program Studi : Pend. Bahasa Inggris
 Judul Penelitian : **THE EFFECT OF SCIENTIFIC APPROACH BY
 USING COOPERATIVE LEARNING ON
 STUDENTS' ACHIEVEMENT IN SPEAKING**

Pembimbing : Hj. Dewi Kesuma.,SS.,M.Hum

Dengan demikian mahasiswa tersebut di atas diizinkan menulis proposal/risalah/makalah/skripsi dengan ketentuan sebagai berikut :

1. Penulis berpedoman kepada ketentuan yang telah ditetapkan oleh Dekan
2. Proyek proposal/risalah/makalah/skripsi dinyatakan **BATAL** apabila tidak sesuai dengan jangka waktu yang telah ditentukan
3. Masa daluwarsa tanggal : 20 Juni 2018

Medan, 25 Ramadhan 1438 H
 20 Juni 2017 M



lap 4 (Empat) :


(Dekan)

ogram Studi

ng

yang bersangkutan :

ENGIKUTI SEMA 180


YAYASAN PENDIDIKAN PEMBANGUNAN NASIONAL
SMP PEMBANGUNAN NASIONAL
Jln. Inpres Desa Sukamandi Hilir Kec. Pagar Merbau Kab. Deli Serdang

: 204/SMP-PN/PM/X/2017

Pagar Merbau, 10 Oktober 2017

: **Balasan Izin Penelitian**

Kepada Yth :

Bapak Dekan / Wali Dekan I

Universitas Muhammadiyah Sumatera Utara

di -

Medan.

Assalamu'alaikum Wr. Wb

Sesuai dengan surat Nomor :4496/IL3-AU/UMSU-02/F/2017 tentang Izin
 Mengadakan Penelitian atas :

Nama	: ASMARIYANI PASARIBU
Fakultas	: Keguruan dan Ilmu Pendidikan
Jurusan	: Pendidikan Bahasa Inggris
NPM	: 1302050342
Judul	: THE EFFECT OF APPLYING SCIENTIFIC APPROACH BY USING COOPERATIVE LEARNING STRATEGY ON STUDENTS' ACHIEVEMENT IN SPEAKING.

Telah kami setuju untuk melaksanakan penelitian pada instansi kami.

Dan telah melakukan penelitian mulai tanggal 10 Oktober s/d 16 Oktober 2017.

Demikian surat ini diberikan untuk dapat dipergunakan sebagaimana mestinya.

Wassalam.

Kepala SMP PEMNAS



EDI SARMAN TO, ST, S Pd



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BERITA ACARA BIMBINGAN PROPOSAL

1 Tinggi : Universitas Muhammadiyah Sumatera Utara
 : Keguruan dan Ilmu Pendidikan
 Prodi Studi : Pendidikan Bahasa Inggris
 Pengas : Asmariyani Pasaribu
 : 1302050342
 Studi : Pendidikan Bahasa Inggris
 Proposal : The Effect of Applying Scientific Approach by Using Cooperative Learning on Students' Achievement in Speaking

Uraian	Deskripsi Hasil Bimbingan Proposal	Tanda Tangan
A/17	- Relevant study → make the subject of the study	[Signature]
	- Revise all in chapter 3	
	- Revise lesson plan → use the appropriate curriculum	
	- Enclose the text	
A/17	- Sampling Technique	[Signature]
	- Test	
SS/17	- Revision complete	[Signature]

Medan, Agustus 2017

Disetujui oleh:
Prodi

Dosen Pembimbing

[Signature]

ra Saragih, S.Pd., M.Hum.)

(Hj. Dewi Kesuma Nst, SS, M.Hum)

UNIVERSITAS MUHAMMADIYAH SUMATERA UTARA
Fakultas Keguruan dan Ilmu Pendidikan

SURAT PERNYATAAN

Bismillahirrahmanirrahim

Yang bertanda tangan di bawah ini, mahasiswa Fakultas Keguruan dan Ilmu Pendidikan Universitas Muhammadiyah Sumatera Utara.

Nama Lengkap : ASMARIYANI PASARIBU
 Tempat/Tgl. Lahir : Medan, 20 Oktober 1994
 Agama : Islam
 Status Perkawinan : Kawin/Belum Kawin/Duda/Janda
 No. Pokok Mahasiswa : 1302050342
 Program Studi : Pendidikan Bahasa Inggris
 Alamat Rumah : Jl. Sempurna Bengkel Psr 7 Tembung

Telp/HP : 0852 7034 6510
 Pekerjaan/Instansi : -
 Alamat Kantor : -

Melalui surat permohonan tertanggal, Oktober 2017 telah mengajukan permohonan menempuh ujian Skripsi. Untuk ujian skripsi yang akan saya tempuh, menyatakan dengan sesungguhnya, bahwa saya :

1. Dalam keadaan sehat jasmani maupun rohani
2. Siap secara optimal dan berada dalam kondisi baik untuk memberikan jawaban atas pertanyaan penguji.
3. Bersedia menerima keputusan Panitia Ujian Skripsi dengan ikhlas tanpa mengadakan gugatan apapun.
4. Menyadari bahwa keputusan Panitia Ujian ini bersifat mutlak dan tidak dapat diganggu gugat.

Demikianlah surat pernyataan ini saya perbuat dengan kesadaran tanpa paksaan dan ekanan dalam bentuk apapun dan dari siapapun, untuk dipergunakan bilamana lipandang perlu. Semoga Allah SWT meridhoi saya. Amin.

Saya yang menyatakan,



ASMARIYANI PASARIBU

