The Effect of Jigsaw Strategy and Think-Pair-Share Strategy On Students’ Speaking ability at SMA GAJAH MADA Medan

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Abstract

This study was intended to find out the effect of using Jigsaw strategy and Think-Pair-Share Strategy on students’ speaking ability of SMA Gajah Mada Medan. The study used research by doing experimental design. The population of this study were all the second year students of grade XI SMA Gajah Mada Medan. 50 students were taken as the sample of this research. The sample was divided into two groups: the first group (25 students) as the Jigsaw group and the second group (25 students) as the Think-Pair-Share group. The instrument for collecting the data was speaking test. The writer used Anova formula to analyze the data. The data were calculated by using Anova two variables formula. The result of the analysis shows that $F_{\text{Test JS}} > F_{\text{Test TPS}} > F_{\text{Test CT}} > 6.23 > 4.23 > 2.95$ is higher than $F_{\text{-table}}$ (2.00) at the level of significance 0.05 and the degree of freedom (df) 48. Therefore, the null hypothesis (Ho) is rejected the alternative hypothesis (Ha) is accepted.

Keywords : Jigsaw, Think-Pair-Share, Speaking

1. The Background of The Study

Language has an important role for human life to express their ideas, emotion an a medium in social interaction to fulfill their daily need. One of the languages is English: most important language in international communication. Many people over the world speak English language when they meet in international meeting, workshop, conference, etc. many countries have set the language as a compulsory subject at school.

In learning English, there are four major skills which should be achieved by learners, namely speaking, listening, writing, and reading. One of these four skills which are very important in communication is speaking.

There are three central processes in learning English; they are reflection, negotiation and collaboration (Manurung, Yayuk Hayulina. 2009:1). When students are able to use the three processes, they do not only learn much effectively but they also have valuable thinking and communication skills that will stand them in good performance in their lives outside school. Three-part version of Brown and Yule’s framework (Natriello & Carolan 2006:2-3): talk as interaction; talk as transaction; talk as performance.

Based on statement above the researcher think that there are three central processes in learning English such as talk as interaction; talk as transaction; talk as performance. The indication of the failure in learning English can be seen through some facts that the students cannot speak English well. Although they have some vocabularies but they cannot speak English. It can be viewed from two points of view. Firstly, Score of writing and speaking. In expressing a same topic, students are easy to write sentences then speak. In writing they are not bounded by the pronunciation and intonation. They only focus on connecting the sentences by structure. While in speaking, beside about structure, they also need a skill of pronunciation and intonation. So the students have a difficulty in speech. The concrete example is that the students are ashamed to practice their English in daily life. Secondly, the frequency of speaking English is low. They only speak English while learning English. But outside of class they seldom practice it, at least with their friends.
Those facts are far different from the expectation of teaching and learning English. In English standard competence of graduation, after learning English, students are expected to have competence in practicing English. The students should be able to use their English in every situation.

Considering the gap between reality and expectation, the researcher is interested in overcoming the problems. There are many factors that influence the process of teaching English. Firstly, the students do not have much time to practice their English. The secondly, lack of motivation in learning English. Thirdly, teaching and learning processes are not supported by facilities such as language laboratory. And the last is that teachers have not had many strategies in teaching English.

The objective of the research is to prove whether speaking ability can be improved through Jigsaw strategy and Think-Pair-Share strategy. To find out the effect of Jigsaw Strategy on students’ speaking ability, to find out the effect of Think-Pair-Share Strategy on students’ speaking ability, and to compare the effect of Jigsaw Strategy with the effect of Think-Pair-Share Strategy on students’ speaking ability of grade XI SMA Gajah Mada Medan.

This research focused on improving the students’ achievement in speaking skill through cooperative learning strategy. Cooperative learning strategy has nine strategy, they are: Jigsaw, Student teams achievement divisions (STAD), Think-pair-share, Numbered heads together, Three-step interview, Co-op, Round robin, Inside-outside circle, Roundtable. But in this research, the researcher will focus on “Jigsaw Strategy and Think-Pair-Share strategy”

The hypothesis of this study is: After applying Jigsaw Strategy and Thinks-Pair-Share Strategy in teaching speaking in the classroom, the students’ speaking skill improved significantly.

The result of the study can give contributions in theoretically and practically:

1. Theoretically
   1) The result of this study is expected for developing types of strategies in Indonesian school.
   2) To enlarge the varieties of research in teaching speaking.

2. Practically
   1) The result of this study is suggested to apply the Jigsaw Strategy and Think-Pair-Share strategy to increase the students’ competence in English speaking ability.
   2) As a reference to other researchers who want to study Jigsaw Strategy and Think-Pair-Share Strategy more intensively in teaching speaking.
   3) The result of this study is expected to be able to wide the skill of teachers in using Jigsaw Strategy and Think-Pair-Share Strategy in order to improve student’s speaking ability.

In conducting a research, theories are needed to explain some concepts or terms applied in the research concerned. The terms must be clarified to avoid confusion. So, the researcher and the reader may have same perception of them.

Speaking ability means the ability to use the language appropriately in social interaction. The interactions involves not only verbal communication but also elements of speaking ability such as grammar, vocabulary, pronunciation and fluency. How students can use their English knowledge in their daily conversation in order to be good at speaking is discussed under the aspect of speaking. In other words, it can be said that speaking ability is the ability or communicative competence to express a sequence of ideas to the other listener fluently.

**Approaches of Teaching Speaking**

This refers to theories about the nature of language and language learning that serves as the source of the practices and principals in language teaching (Richards and Rodgers, 1986:16). An approach describes how...
language is used and how its constituent parts interlock. It offers a model of language competence and makes statements about the condition which will promote successful language learning.

These three models they are the behavioralist approach, the cognitivist approach, and the constructivist approach (Brewer & Burke 1999:10-11).

1. Behavioralist Approach: This approach is concerned with changes in an individual’s behavior that occur as a result of learning. Therefore, the behavior list focuses primarily on the development of skills and abilities, as opposed to knowledge.

2. Cognitivist Approach: Cognitive theorists are concerned with the changes in an individual’s knowledge that result from experience with a stimulus environment. The cognitive approach is based upon the concept of schemata, or mental models, by which individuals organize their perceived environment.

3. Constructivist Approach: A more recent development is the constructivist approach, based on the belief that learning is a self-assembly process. Constructivists suggest that individuals “construct” their understanding of a topic area through two processes: conflict resolution and reflection.

In order to teach speaking successfully and enable students to speak well in communication, teachers should be able to apply a suitable approach.

In achieving those goals, teachers need to draw on more than one approach and use a variety of instructional tools, such as audiotapes, videos, and multimedia computer technology, to meet different students' needs in teaching speaking skills.

This table below shows the explanation of each approach in teaching speaking skills (Pascoe:2003-98).

**Table 2.1  Overview of Treatment Speaking in Second Language Teaching Methods**

<table>
<thead>
<tr>
<th>Approach</th>
<th>Treatment of Speaking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grammar Translation</td>
<td>No Speaking or listening is required of students</td>
</tr>
<tr>
<td>Audio-Lingual Method (ALM)</td>
<td>Focus on speech with heavy reliance on repetition and oral drills</td>
</tr>
<tr>
<td>Direct Method and situational</td>
<td>Teacher does much of the talking; students engage in many controlled speaking activities centered on specific topics of situations</td>
</tr>
<tr>
<td>language teaching</td>
<td></td>
</tr>
<tr>
<td>Silent way</td>
<td>Teacher rarely speaks while students engage in speaking activities centered on grammatically sequenced forms.</td>
</tr>
<tr>
<td>Suggestopedia</td>
<td>Students listen to reading of dialogs or “concerts” by the teacher and later engage in controlled or guided speaking activities</td>
</tr>
<tr>
<td>Community Language Learning</td>
<td>Teacher acts as “human computer” to translate what the learner wishes to say in the target language</td>
</tr>
<tr>
<td>Comprehension Approach</td>
<td>Emphasize development of listening and reading skills; little attention to speaking and writing</td>
</tr>
<tr>
<td>Natural Approach</td>
<td>Early emphasis on listening comprehension with delayed guided speaking activities</td>
</tr>
<tr>
<td>Total Physical Response (TPR)</td>
<td>Students rarely speak but use physical actions to demonstrate listening comprehension</td>
</tr>
<tr>
<td>Communicative Language Teaching (CLT)</td>
<td>Focus on speech for communication; use of variety of authentic speaking activities</td>
</tr>
<tr>
<td>Task Based</td>
<td>Speech centers around authentic tasks needed to</td>
</tr>
</tbody>
</table>
Methods of Teaching Speaking

A method is the practical realization of an approach. The originators of a method arrived at decisions about types of activities, roles of teachers and learners, the kinds of material which will be helpful, and some model of syllabus organization. Method includes various procedures and techniques as part of their standard fare.

Thirumalai (2002) states that there are some methods in teaching speaking as follow: Asking and Answering Questions; Asking and answering questions is an essential part of teaching, learning, and using any language. Imitation and Repetition; Imitation helps students to pronounce and produce the English utterance they hear from the teacher as closely as possible to the utterance produced by her. Substitution; substitution of a word, phrase, or sentence by another is which helps students to produce new utterances and to develop speaking skill. Eliciting; Eliciting is an important process which teachers must employ to get the class involved in what is going on in the class. For speaking practice eliciting is highly essential. It helps students to focus their attention, to think, and to use what they already know. It helps teachers to assess what the class already knew. Speaking Through Guessing; Through the process of guessing, students are encouraged to see the patterns of usage and to invent the correct words and sentences. Students will guess words and sentences that have not yet been taught to them. Role Play; Role play brings situations from real life into the classroom. Students imagine and assume roles.

Strategy in Teaching Speaking

Strategy is an action selected deliberately to achieve particular goals. An emerging skill can become a strategy when it is used intentionally. Likewise, a strategy can go underground and become a skill. Indeed strategies are more efficient and developmentally advance when they become generate and applied automatically as skills. Thus, strategies are skills under consideration. Dobson (1987) says that there are some effective strategies for teaching speaking can be applied in classroom such as:

1. Dialogues. A short conversation between two people presented as a language model-the dialogue-often receive top billing in the manipulative phase of language learning. In repeating dialogue, the students practice pronunciation and memorization and it can help the students develop fluency in English.
2. Small-group discussion. Small-group discussion is excellent way to give students opportunities to speak English.
3. Debate. Debate helps students speak more fluently and during a debate they can represent their feelings on an issue.
4. Song. Singing is a popular activity throughout world and the students often delight in learning English songs. In teaching an English songs, it can help students to improving aural comprehension, group spirit is fostered through singing, singing allows the students a chance to relax from the pressure of conversation, reinforce the students’ interest in learning English
5. Games. Language games can add fun and variety to conversation sessions if the participants are fond of games. Games are especially refreshing after demanding conversational activities such as debates or speeches. A game can help the students to stimulus in additional conversation.

Element of Speaking

In speaking, it is very important for student to acquire the ability to express their ideas and opinions. Consequently, this competency should be mastered by learners of language. Following are the elements of speaking ability according to Harmer (2001:269-271), a. Language features such as the connected speech, expressive devices, lexis and grammar, and negotiation language.
Connected speech is the modifying in sounds production or utterances such as assimilation, omission, addition, weakened (through contraction and stress patterning). An expressive device is the alteration of the speed, volume, and stress of utterances to show the feeling. The use of this device contributes the ability to convey meaning. Then lexis and grammar is necessary for teacher to give of supply of certain words and language function, such as agreeing or disagreeing, surprise and so forth. Those make students can produce at various stages of an interaction. Lastly, negotiation is the benefits to clarify and to show what we are saying. b. Mental/social processing such as language processing, interacting with others, and information processing.

2.2.5 Purpose of Speaking

According to Ochs and Winker in Tarigan (1981:15-16) the main purpose of speaking is to communicate. In order to be able to deliver thought effectively, the speaker should understand the meaning of everything that want to be communicated; she/he should be able to evaluate the effect of the communication to the listener; and able to know the principles that base the speaking situation, both collectively and individually. Whether as social tool or business or professional tool, basically speaking has three main purposes: to inform, to entertain, and to persuade. The combination of each purpose is also possibly occur in speaking.

Joanne Baker (2003:5) states that there are some very educational reasons to practice speaking during a lesson. Speaking activities can reinforce the learning of new vocabulary, grammar or functional language. Speaking activities give students the chance to experiment with language they have already known in different topics.

Models of Teaching Speaking

Average person who want learn English language, most certainly they have same reason. It is can speak English. So, they learn English language to try speaking English. Usually, failure of learn speaking cause bore situation in the class, unattractive, less fun and silent in the class. There are many models of learning speaking. According to M. Solahudin in Kiat-Kiat Praktis Belajar Speaking, there are some models of learning speaking as follows:

1. Main class and study club
   It is better for meeting with the teacher in the class twice a day. First meeting is called main class and second meeting is called study club. Main class is meeting with the teacher, that the teacher as students advisor in the class. The teacher has important character in the class. All activities in the class depend on the teacher. Study club is group of learning, it held to repeat the material study in the class by senior. Because the senior is not teacher, so the students more enjoy make questions and practices speaking with the senior. Activities in the study club are not different with main class, because the reason of study is to explain material learning.

2. Conversation
   Conversation on the way is one of activity in speaking class. The function is to bore disappear in the class. They can share about their daily activity. So, the students feel the conversation more clearly, attractive, and comfortable.

3. Discussion group
   Discussion group is one of activity in speaking class. Discussion in speaking program only talking about easy topic. Because this discussion just to train the students to speak English. The purpose of discussion is to train the students to speak English more clearly.

4. Describing picture
   Describing picture is one of activity in teaching speaking English. In this activity, students must describe pictures in front of class. Every student gets one picture and must describe it. The purposes of this activity are to train students imagination and retell story in speaking English. Those are models that Solahudin offers to use in speaking class. The researcher thinks that describing picture is suitable to improve students speaking skill in descriptive text because the purposes of these activities are to train students imagination and describe something in speaking English. Usually, students can’t speak anything because they have not idea. The researcher hopes that picture can help students to speak English, because students will be easier to say when they see. The writer will make this activity more attractive and make students get enjoyable in the class.
Descriptive Text

Descriptive is kind of text which describes a particular person, place, things. In descriptive text, the researcher usually uses the simple present tense. The purpose of descriptive text is to describe something, someone or a place.

Pardiyono (2007:34) state that description paragraph was a type of written text paragraph, in which has the specific function to describe about object and it has the aim that was giving description of the object to the reader clearly.

From the definition above, it can be concluded that description paragraph was a paragraph that describes a particular person, place, or event in great deal.

Types of Descriptive

Jolly (1984:470) assert there are five types of descriptive.

1. Describing process
   Describing a process not only explain how something was done, but also explain why it was done and what needed to complete the process.

2. Describing and event
   A writer should be able to memorize and remember what happened in the event. For example writer will write Tsunami. He/she to explain the details related to the event, so that the readers can imagine the real situation and condition.

3. Describing Place
   Presenting something concrete was the way to describe place.

4. Describing Object
   To describe an object accurately was done by providing the physical characteristic of object.

5. Describing of Personality
   In describing a person the first thing that we do was recognizing his/her individual characteristic

Part of Descriptive Text

There are three part of descriptive text, they are:

1. Social Function
   Describe the characteristic and conditions of the object either person, thing place, or animals.

2. Generic Structure
   Which was divided in to two they are: a. identification: identifies the phenomena on to be described and b. description: describe parts, qualities, characteristics, condition qualities.

2.3.3 The Example of Descriptive Text

His full name is Barack Hussein Obama. People often calls him Barack Obama or Obama only. He is African-American. He was born on 4 August 1961 in Honolulu, USA. Obama is quite tall, 183 cm. He has oval face, baldheaded, and black skin. His face looks patient and strong. He always keep smiles when he gives speech. Obama has got married to Michelle. They have 2 daughters, Malia and Natasha Obama. Obama’s hobby
is having sport. He likes playing golf in his spare time. Obama also loves blogging. He writes on his twitter quite often.

**Conventional Teaching Method**

Conventional teaching is concerned with the teacher being the controller of the learning environment. Power and responsibility are held by the teacher and they play the role of instructor (in the form of lectures) and decision maker (in regards to curriculum content and specific outcomes). They regard students as having 'knowledge holes' that need to be filled with information. In short, the traditional teacher views that it is the teacher that causes learning to occur (Novak, 1998)

**Characteristics of Conventional Teaching Method**

Before we tackle the issue of technology as replacing conservative traditional teaching methods, we must first discover the basics of traditional teaching methods. The three main Characteristics of methods used in traditional education are as follows:

1. **Lectures and Direct Instruction**
   Traditional teaching, as most of us have experienced, is classroom-based and consists of lectures and direct instructions conducted by the teacher. This teacher-centered method emphasizes learning through the teacher’s guidance at all times. Students are expected to listen to lectures and learn from them.

2. **Seatwork**
   Tests are the most significant indicator of student performance and degree of learning. Students who belong in the same class sit down and take a single set of examinations, which they should pass. Most of the examinations are taken from fundamental resources, such as textbooks and other publications that are relevant to the subject.

3. **Listening and Observation**
   Teachers talk to the students about the subject matter and expect them to learn everything through the lectures held in the classroom.

**Advantages of Conventional Teaching**

1. Gives the instructor the chance to expose students to unpublished or not readily available material.
2. Allows the instructor to precisely determine the aims, content, organization, pace and direction of a presentation. In contrast, more student-centered methods, e.g., discussions or laboratories, require the instructor to deal with unanticipated student ideas, questions and comments.
3. Can be used to arouse interest in a subject.
4. Can complement and clarify text material.
5. Complements certain individual learning preferences. Some students depend upon the structure provided by highly teacher-centered methods.
6. Facilitates large-class communication.

**Disadvantages of Conventional Teaching**

1. Places students in a passive rather than an active role, which hinders learning.
2. Encourages one-way communication; therefore, the lecturer must make a conscious effort to become aware of student problems and student understanding of content without verbal feedback.
3. Requires a considerable amount of unguided student time outside of the classroom to enable understanding and long-term retention of content. In contrast, interactive methods (discussion, problem-solving sessions) allow the instructor to influence students when they are actively working with the material.
4. Requires the instructor to have or to learn effective writing and speaking skills.

**Types of Cooperative Learning Strategy**

According to Slavin (2005) there are nine types of Cooperative Learning strategies, They are
1. **Jigsaw**

   Groups with five students are set up. Each group member is assigned some unique material to learn and then to teach to his group members. To help in learning students across the class working on the same sub-section get together to decide what is important and how to teach it. After practice in these “expert” groups the original groups’ reform and students teach each other.

2. **Think-Pair-Share**

   There are involves a three step. During the first step individuals think silently about a question posed by the instructor. Individuals pair up during the second step and exchange thoughts. In the third step, the pairs share their responses with other pairs, other teams, or the entire group.

3. **Three-Step Interview**

   Each member of a team chooses another member to be a partner. During the first step individuals interview their partners by asking clarifying questions. During the second step partners reverse the roles. For the final step, members share their partner’s response with the team.

4. **Round Robin Brainstorming**

   Class is divided into small groups (4 to 6) with one person appointed as the recorder. A question is posed with many answers and students are given time to think about answers. After the “think time,” members of the team share responses with one another round robin style. The recorder writes down the answers of the group members. The person next to the recorder starts and each person in the group in order give an answer until time is called.

5. **Three-minute review**

   Teachers stop any time during a lecture or discussion and give teams three minutes to review what has been said, ask clarifying questions or answer questions.

6. **Numbered Heads Together**

   A team of four is established. Each member is given numbers of 1, 2, 3, 4. Questions are asked of the group. Groups work together to answer the question so that all can verbally answer the question. Teacher calls out a number (two) and each two is asked to give the answer.

7. **Team Pair Solo**

   Students do problems first as a team, then with a partner, and finally on their own. It is designed to motivate students to tackle and succeed at problems which initially are beyond their ability. It is based on a simple notion of mediated learning. Students can do more things with help than they can do alone. By allowing them to work on problems they could not do alone, first as a team and then with a partner, they progress to a point they can do alone that which at first they could do only with help.

8. **Circle the Sage**

   First the teacher polls the class to see which students have a special knowledge to share. For example the teacher may ask who in the class was able to solve a difficult math homework question, who had visited Mexico, who knows the chemical reactions involved in how salting the streets help dissipate snow. Those students (the sages) stand and spread out in the room. The teacher then has the rest of the classmates each surround a sage, with no two members of the same team going to the same sage. The sage explains what they know while the classmates listen, ask questions, and take notes. All students then return to their teams. Each in turn, explains what they learned. Because each one has gone to a different sage, they compare notes. If there is disagreement, they stand up as a team. Finally, the disagreements are aired and resolved.

9. **Partners**

   The class is divided into teams of four. Partners move to one side of the room. Half of each team is given an assignment to master to be able to teach the other half. Partners work to learn and can consult
with other partners working on the same material. Teams go back together with each set of partners teaching the other set. Partners quiz and tutor teammates. Team reviews how well they learned and taught and how they might improve the process.

2.6 Jigsaw Strategy

Jigsaw as a strategy used in cooperative language learning approach. The Jigsaw Strategy is a method of organizing classroom activity that makes students dependent on each other to success. It has been central to 'interaction' theory of foreign language learning since 1980s. Rivers (1987) defined the interactive perspective in language education; "students achieve facility in using a language when their attention is focused on conveying and receiving authentic message (Richards & Rodgers, 2001:21). Jigsaw advocates draw heavily on the theoretical work of developmental psychologists Jean Piaget (1965) and Vygotsky (1962), both of whom stress the central role of social interaction in learning (ibid: 194).

Susan Ledlow (1996) in CLTS (Center of Learning and Teaching Excellent) says that Jigsaw was originally developed by Elliot Aronson (1978). It has since been adapted by a number of teachers at all levels in a variety of ways. Essentially, it is a cooperative learning lesson design that takes the place the place of a lecture. Each student within a team has a piece of the information to be learned by all students, and each student is responsible for teaching their section to the other students on the team. When all the pieces are put together, the students should have the whole picture hence the name, Jigsaw. Can these same strategies be turned into learning and teaching strategies?

Elliot Aronson says yes: Author of The Jigsaw Classroom (1978), Aronson used them to develop a teaching concept built on cooperative learning exercises aimed at actively engaging all students. "Designing an effective jigsaw requires different, but overlapping, team assignments and a meaningful group task, plus attention both to how students will prepare effectively for peer teaching and how the instructor will evaluate what individual students have learned" (Tewksbury, 2010).

According to Eggen and Kauchack in Yasin (2004) say that, “jigsaw” is the name of a collection of teaching strategies that use by the students to help each other to learn. Related to above statement, Slavin (1991) says that; “jigsaw strategy refers to instructional methods in which students work together in a small groups to help each other learn.” Proponent to above theory, Johnson & Johnson (1991) says that, “jigsaw is the instructional use of small groups so that students work together to maximize their own and each other’s learning”.

Kagan (1994) said that Jigsaw is an effective strategy to use when you want to increase student’s mastery or a topic at a hand, boost their concept development, enhance targeted discussion among students, and foster group project participation and learning.

Clark J in his book “cooperative Learning :The Jigsaw Strategy (1985)” said that Jigsaw is one method which makes the independence of group members possible, promotes interaction and cognitive elaboration, takes into consideration, the principle of the multiple perspective and context as well as the construction of common knowledge. Furthermore Aronson (1976) defines that “Jigsaw learning is a group learning process based on the understanding that people learn better when they are together. It provides an alternative to the traditional classroom in which teacher is up front teaching the class as a whole or supervising individualized seat work. It also provides an alternative to competition among students for attention, approval and achievement. Jigsaw strategy is used to develop the skills and expertise needed to participate effectively in group activities.

Based on opinion above, we can conclude jigsaw Strategy is a learning strategy of cooperative learning, with students learn in small group consist of four or six person, diverse inter gender ethnicity, race and ability, cooperative in positive interdependence and responsible to present the task for each member.

Process of Designing Expert Group in Jigsaw

According to Aronson (1976) there are 6 steps to design expert group in Jigsaw strategy:

1) Assign topics

The learning unit is divided into four topics and each learner on the team is assigned one topic. For teams of five, two students are assigned one topic and instructed to work together. For three member teams, only three topics are assigned and the members learn the fourth from another team.
2) Expert groups meet

All Topic 1 learners meet in one area, Topic 2 learners in another area, Topic 3 learners and Topic 4 learners. If eight teams exist in the classroom, two groups of each topic may be formed to reduce the size of the expert groups. A balance of achievement levels may have advantages for topic groups.

3) Experts consult

Experts consult and discuss their topic, making certain each group member understands the information. A variety of strategies for checking for understanding can be used. For example, work sheets, cross group interviews, dialogue etc.

4) Experts create and practice a teaching plan

Expert groups design and practice a plan for teaching their expertise to team members.

5) Experts return to teams to share and tutor

Experts take turns sharing their individual topic expertise with team members.

6) Demonstration of knowledge

The culminating activity allows individual team members to demonstrate their knowledge of all topics identified in the unit.

Procedures of Jigsaw Strategy

Each learning strategy has a certain steps or procedure. The teachers who want to apply a special learning strategy must understand the whole steps and procedures. Aronson, E, & Patneo, S (1997) especially propose 10 steps or procedures in using Jigsaw learning to teach any subject, including teaching speaking skill:

1. Divide students into 5 or 6 person jigsaw groups. The groups should be diverted in terms of gender, ethnicity, race, and ability.
2. Appoint one student from each group as the leader. Initially, this person should be the most mature student in the group.
3. Divide the day's lesson into 5-6 segments. For example, if you want history learners to learn about Eleanor Roosevelt, you might divide a short biography of her into stand-alone segments on:
   1) Her childhood,
   2) Her family life with Franklin and their children,
   3) Her life after Franklin contracted polio,
   4) Her work in the White House as First Lady, and
   5) Her life and work after Franklin's death.
4. Assign each learner to learn one segment, making sure learners have direct access only to their own segment.
5. Give learners time to read over their segment at least twice and become familiar with it. There is no need for them to memorize it.
6. Form temporary "expert groups" by having one student from each jigsaw group join other students assigned to the same segment. Give learners in these expert groups time to discuss the main points of their segment and to rehearse the presentations they will make to their jigsaw group.
7. Bring the learners back into their jigsaw groups.
8. Ask each learner to present her or his segment to the group. Encourage others in the group to ask questions for clarification.
9. Float from group to group, observing the process. If any group is having trouble (e.g., a member is dominating or disruptive), make an appropriate intervention. Eventually, it's best for the group leader to handle this task. Leaders can be trained by whispering an instruction on how to intervene, until the leader gets the hang of it.
10. At the end of the session, give a quiz on the material so that learners quickly come to realize that these sessions are not just fun and games but really count.

Advantages and Disadvantages of Jigsaw Strategy

There are some advantages of using Jigsaw strategy (Tewkesbury (2008 : web.grcc.edu))

1. Students have the opportunity to teach themselves, instead of having material presented them. The technique fosters depth of understanding
2. Each student has practiced it in self-teaching, which is the most valuable of the entire skill teacher can help them learn.
3. Students have can practice in peer teaching, which requires that they understand the material at deeper level than student typically do when simply asked to produce an exam
4. Students become more fluent in use of English
5. Each student has a chance to contribute meaningfully to discussion, something that is difficult to achieve in large group discussion. Each student develops an expertise and has something important to contribute.
6. Asking each group to discuss a follow-up question after individual presentation fosters real discussion.

Implementation of jigsaw strategy in class not only has the advantages but also disadvantages, such as follow:

1. It takes much time to organize the group. The Teacher should make groups that combine the students who have different intelligences
2. If students don’t get into their group quickly enough or read their initial texts quickly enough, it will run out of time.
3. If one or two obstinate students don’t participate a whole group or two will lose out on a piece of the text.
4. The class situation become noisy, so the teacher needs to control the students
5. A Teacher cannot monitor all groups at once.

According to Johnson & Holube collaborate the advantages and disadvantages of jigsaw Strategy

<table>
<thead>
<tr>
<th>Advantage</th>
<th>Disadvantage</th>
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<tbody>
<tr>
<td>- It is an efficient way to learn the material</td>
<td>- Uneven time in expert groups</td>
</tr>
<tr>
<td>- Build a depth of knowledge</td>
<td>- Students must be trained in this method of learning.</td>
</tr>
<tr>
<td>- Disclose a student’s own understanding and resolves misunderstanding.</td>
<td>- Require an equal number of groups.</td>
</tr>
<tr>
<td>- Build on conceptual understanding</td>
<td>- Classroom management can be become a problem</td>
</tr>
<tr>
<td>- Develop teamwork and cooperative working skill</td>
<td></td>
</tr>
</tbody>
</table>

Think-Pair-Share Strategy

This strategy provides an opportunity for all students to share their thinking with at least one other student which, in turn, increases their sense of involvement in classroom learning

Definitions of Think-Pair-Share Strategy

The Think-Pair-Share strategy is designed to differentiate instruction by providing students time and structure for thinking on a given topic, enabling them to formulate individual ideas and share these ideas with a peer. This learning strategy promotes classroom participation by encouraging a high degree of pupil response, rather than using a basic recitation method in which a teacher poses a question and one student offers a response. Additionally, Think-Pair-Share can also be used as an information assessment tool; as students discuss their ideas, the teacher can circulate and listen to the conversations taking place and respond accordingly.

In this strategy, a problem is posed, students have time to think about it individually, and then they work in pairs to solve the problem and share their ideas with the class. Think-Pair-Share is easy to use within a planned lesson, but is also an easy strategy to use for spur-of-the-moment discussions. This strategy can be used
for a wide variety of daily classroom activities such as concept reviews, discussion questions, partner reading, brainstorming, quiz reviews, topic development, etc. Think-Pair-Share helps students develop conceptual understanding of a topic, develop the ability to filter information and draw conclusions, and develop the ability to consider other points of view.

Think: Students think independently about the question that has been posed, forming ideas of their own.

Pair: Students are grouped in pairs to discuss their thoughts. This step allows students to articulate their ideas and to consider those of others.

Share: Student pairs share their ideas with a larger group, such as the whole class. Often, students are more comfortable presenting ideas to a group with the support of a partner. In addition, students' ideas have become more refined through this three-step process.

Think-Pair-Share is a grouping strategy that lets students collaborate on ideas, opinions, research topics, problem-solving procedures, debate resolutions, textual analyses, and small group activities (Schlemmer, 2008:24).

Frank Lyman (1981) purposes this strategy in order to solve or at least to minimize students’ problems. Think Pair Share teaching strategy is a strategy to accustom students practice in speaking by their ideas. Think Pair Share strategy can guide the students to their prior knowledge background and make the students active in participating classroom discussion. The importance of self-confidence for learners is crucial part in leaning speaking English. This can achieve teaching material and activities that can give enthusiasm, brave and stimulation to learners, when the teacher present the material and ask student to perform with their ideas, they will not to monotonous and boring in learning process.

Dornyei (2001) suggests that the ways to promote students’ self-confidence were through providing experience of success, encouraging the learners and reducing anxiety. The learners have to enthusiasm achieved the goal of learning a foreign language to success in mastery a target language well. Students having to high self-confidence will maximize the feedback to improve their speaking competency and reach their excellent goal in learning.

**Procedures of Think-Pair-Share Strategy**

According to Gunter, M. A and Schwab, J. H (1999), there are four steps of Think-pair-share procedure, they are:

1. **Step One** – Teacher poses a question. The process of think-pair-share begins when the teacher poses a thought-provoking question for the entire class. This may be a straightforward question or a problem the teacher wants to pose to the class for solution. Questions must pose problems or dilemmas that students will be willing and able to think about.

2. **Step Two** – students think individually. At a signal from the teacher, students are given a limited amount of time to think of their own answer to the problematic question. The time should be decided by the teacher on the basis of knowledge of the students, the nature of the question, and the demands of the schedule. It may be helpful, though it is not required, to have students write out their individual responses and solutions. Students should understand that while there may be no one right answer, it is important that everyone come up with some reasonable answer to the question. This step of the procedure automatically builds “wait time” into the classroom conversation.

3. **Step Three** – Each student discusses his or her answer with a fellow student. The end of the think step signal to the students the time to begin working with another student to reach consensus on an answer to the question. Each student now has a chance to try out possibilities. Together, each pair of students can reformulate a common answer based on their collective insights to possible solutions to problem. At times, the process can go one step farther by asking pairs of students to regroup into foursome to further refine their thoughts before sharing with the group at large. These small group settings are less threatening to individual students than venturing forward before the whole group with an untried answer. The pair step in the model also promotes much more conversation among students about the issues entailed by the question.

4. **Step Four** – Students share their answer with the whole class.
5. In this final step, individuals can present solutions individually or cooperatively to the class as a whole group. Where pairs of students have constructed displays of their answer, as in a chart or diagram, each member of the pair can take credit for the product of their thinking.

**Advantages of Think-Pair-Share Strategy**
1. Students’ confidence improves and all students are given a way to participate in class rather than the few who usually volunteer.
2. Students are actively engaged in the thinking.
3. More of the critical thinking is retained after a lesson if students have an opportunity to discuss and reflect on the topic.
4. Many students find it safer or easier to enter a discussion with another classmate rather than with a large group.
5. Students and teacher alike gain much clearer understandings of the expectation for attention and participation in classroom discussion.

**Disadvantages of Think-Pair-Share Strategy**
1. The class can be noisy because it’s a group discussion.
2. Time consuming. This strategy may be time consuming if the class is big and the teacher cannot create an amusing classroom atmosphere.
3. There is no equal participation, although each student within the group has an equal opportunity to share. It is possible that one student may try to dominate.

**Speaking**
Speaking is to share information or say something about feelings, perception and intentions to other people. So, in speaking they change ideas into words to inform to other people (Thornbury 2006:1). Speaking is so much part of daily life that is taken for granted: an average person produces tens of thousands of words a day. As human beings, people learn to speak at least one language (the language that they hear) as they grow up.

According to (Yorkey :1990:12), speaking skill is a skill and like other skill, it must be practiced continuously. Speaking is very important part in studying English. People need to speak in order to communicate each other and make a good communication.

Purpose of speaking is to inform, to report, something to the listener. Something may be, the process of explaining something, describe, interpret, or interpret any matter, give, distribute, or imparting of knowledge, relationship between objects, things, or events.

**Functions of Speaking**
In practical in everyday life generally speaking function is as a means of social communication. Each activity is characterized by the communication messenger as a speaker and other listeners as a listener. Communication is a series of activities designed functional using speech systematically arranged to obtain reaction listeners in order to achieve certain goals.

According to (Wirth:2008) The function of speaking; (1) express feelings, (2) motivate others to act and do something, (3) discuss any issues with a particular topic, (4) expression, mandate, or messages, (5) or just greet each other to come into contact, (6) discuss the issue with a particular language, (7) the interface between regions and cultures

**Nature of Speaking**
Becoming a more effective communicator is not simply a matter of practicing the spoken language; practice certainly helps, but the real improvements come from planning how to approach a speaking task and
evaluating how well you spoke (Lynch/Anderson 1992;1). It is also essential to be in a language rich environment where the teacher’s role is to push learners to complex and varied language use instead of allowing them to fail back on a very limited range of expression. Most students of SMA Gajah Mada cannot express what they want and need to say in English. Students who have been to an English speaking country can generally speak more fluently and confidently and have developed a lot of the strategies inherent in normal conversation because they have had many opportunities for interacting with people and a greater exposure to English in a natural setting.

**Problem of Speaking.**

Environment is the first major problem (Anderson 2002:18). Studying two times a week in the native country provides a little exposure to natural English. Unless students use English at work, they have to make a conscious effort to watch films, listen to the news. It can be difficult for teachers to find resources. Speaking unlike writing has many features which are difficult to record or transcribe due to its very nature and this complicates the task for the teacher. For newly qualified teachers it is a huge task.

Another problem is motivation. The level, the more difficult it is to perceive progress. Learning a language is hard work and improving speaking skill is a slow process when students attend class for so few hours a week. It can be frustrating.

Some personal factors can hinder process; shyness, lack of confidence, nerves. These can be dealt with in the right learning environment. However some students can be over concerned with accuracy, and find it difficult to achieve fluency. Other students can be very fluent and not enough pay attention to accuracy. The teacher needs to help students become aware of the handicap of these two extreme behaviors.

Bygate (1987:3) distinguishes between students knowledge of the language and their skill in using the language. He goes on to separate skills into motor perceptive skills which involve perceiving, recalling, and articulating sounds and structures of the language and interaction skills which involve making decisions about communication. What to say, how to say, and whether to developing accordance with one’s intention, while maintaining the desired relations with other. The nature of speech and demands it puts on learners; the time pressures, the grammatical and lexical choices to be made, the rapid planning and execution needed to be effective, the role is as listener and importance of understanding, all contribute to the complexity of the skill. Helping Students Bridge the gap between linguistic competence and communicative competence is an extremely complex task.

**Assessments of Speaking**

The primary aim of assessment is to provide information about the development and achievement and those involved in the teaching and learning situation. Assessment records evidence related to students’ abilities, both actual and potential, and charts their progression. The intended audience of assessment feedback should always include the students themselves (Clark and Goode, 1999:15)

Hughes in Jason (1989) states that the proper relationship between teaching and assessment is partnership. A teacher can also use the result of assessment to analyze the materials delivered to the students and the instruments that should be repaired. Assessment process can also help the teacher know the ability of each student.

The categories of speaking assessment according to Brown (2004:172-173) are:

**Grammar (20)**

1. Grammar refers to how well the students are able to use an appropriate of grammatical structures when expressing themselves.
2. It also describes how accurate students’ uses of English are.
3. The language that students use also has to be effective.

**Pronunciation (20)**

1. Pronunciation describes how well students’ utterances are comprehensible to the listener.
2. The using of intonation should be possible to express a range of attitudes and meanings.
3. The using of volume of sound makes the clear pronunciation.

**Vocabulary (20)**

1. Word choice sometimes is inaccurate.
2. It is also find word repetition without try to speak other word.

**Fluency (20)**

1. Speech is very slow, except for the short sentences; frequently punctuated by silence or long pause.
2. As possible that there are not hesitations in speaking.
3. It also for sound repetition which makes fluency is not effective.
Comprehension (20) : 1) The students can understand simple questions and statement if delivered with slowed speech and repetition

In teaching speaking, there are some points need to be evaluated. Students should be able to speak English when they deliver their substantive speech. Besides, students should be able to deliver their arguments and idea well and analyze the topic well.

According to the Foreign Services Institute (FSI) Analytic Rating Scale in scoring the test in Sullivan (2008:22),

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Excellent to Very Good</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluency</td>
<td>Good To Average</td>
<td>26-22</td>
</tr>
<tr>
<td></td>
<td>Fair to poor</td>
<td>21-17</td>
</tr>
<tr>
<td></td>
<td>Very poor</td>
<td>16-13</td>
</tr>
<tr>
<td>Accuracy</td>
<td>Good To Average</td>
<td>17-14</td>
</tr>
<tr>
<td></td>
<td>Fair to poor</td>
<td>13-10</td>
</tr>
<tr>
<td></td>
<td>Very poor</td>
<td>9-7</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>Good To Average</td>
<td>17-14</td>
</tr>
<tr>
<td></td>
<td>Fair to poor</td>
<td>13-10</td>
</tr>
<tr>
<td></td>
<td>Very poor</td>
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</tr>
<tr>
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<td>21-18</td>
</tr>
<tr>
<td></td>
<td>Fair to poor</td>
<td>17-11</td>
</tr>
<tr>
<td></td>
<td>Very poor</td>
<td>10-5</td>
</tr>
<tr>
<td>Pronunciation</td>
<td>Excellent to Very Good</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Good To Average</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Fair to poor</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Very poor</td>
<td>2</td>
</tr>
<tr>
<td>Total score</td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

Note:
1) Excellent to Very Good: Knowledgeable, substantive development of study, relevant to assigned topic.
2) Good To Average: Some knowledge of subject, adequate range, limited development of the topic sentence, mostly relevant to topic, but lack of detail.
3) Fair to Poor: Limited knowledge of subject, little substance, inadequate development of the topic.
4) Very Poor: Does not show knowledge of subject, on substantive, not pertinent, or not enough to evaluate.

Conceptual framework
In Teaching Speaking the strategy is one of the important part. Good strategy can improve the students speaking ability. Jigsaw Strategy and Think-Pair-Share strategy are enjoy strategy.
2. Research Design

The design of this research is quantitative by doing an experimental which is to find the effect of the independent variable on the dependent variable they are Jigsaw strategy, Think-Pair-Share strategy and teaching speaking. Ary, et.al. (1979:225) state the experiment is the event planned and carried out by the researcher to gather evidence relevant to the hypotheses. In the experimental, there are two variables of major, namely:

1. The independent variable is the variable which can be manipulated or changed by the experimenter.
2. The dependent variable is the variable upon which the effects of the changes are observed, but not manipulated by the experimenter.
The research classified into two variables, independent variable (Jigsaw strategy and Think-Pair-Share) and dependent variable (Teaching speaking). In doing this, the researcher attempts to determine or predict what may occur. In this study, the writer will prepare or set up Jigsaw strategy and Think-Pair-Share strategy toward teaching speaking for the students who will answer speaking test.

This study was conducted at SMA Gajah Mada Medan. This school is located at JL. HM Said No 19 Medan. This research was conducted in grade XI on the first semester in the academic year of 2015/2016 for about a month. Began from 13th August 2015 until 2nd of September 2015.

Gay (1987: 107) says that population is a group to which the researcher would like the result of the study to be generalized and sampling is the processes of selecting a number of represent one the large group from which they selected. The population of the study is the students of grade XI SMA Gajah Mada Medan 2015/2016 academic year. the total number of 50 students.

Sample is a portion of population. Sample is the small group that is observed (Ary, 1979:129). The samples of this study are all students (50 students) on the first semester grade XI SMA GAJAH MADA MEDAN 2015. All students was taken as the sample which was called as total sample.

The data of this study was collected by using subjective test. The test was speaking test. The writer tested the fluency, pronunciations, Vocabulary, accuracy and grammar of the students. The scoring system taken from two assessors. The assessors were the writer and the Teacher.

In this study the media used to collect the data is Handphone. The researcher asked the students to speak and the researcher was recorded. The two assessors analyzed the speaking of the students. The research procedures started by giving pre-test to the students. The score of the students in pre-test is a measurement of their competence in speaking. The pre-test applied before giving treatment.

After getting the score of the students in pre-test, the writer given treatment to the students in order to improve the score in pre-test. The procedure of giving treatment started by giving motivation and brainstorming about the material. After that, students given explanation about speaking. Then, students divided in some groups and ask to give arguments relating to the material. After discuss the students practice their speaking. After the writer sure that the students understood about how to speak well, finally the students were given post-test. The students came to the real speak, during the speaking process the two assessors taken the scores of each student. And the scores of the two assessors taken from the average score. The result of this post-test used to saw the effect of Jigsaw Strategy and Think-Pair-Share Strategy to improve the students’ speaking ability.

The pre – test administered before the treatment. The pre-test given to all students. The aim of the pre-test is to find out the homogeneity in the mean score of students. In doing the pre-test, the students will ask to answer some question based on their understanding about speaking. And then students’ scores were calculated according to the criteria of assessment.

**Treatment**

The treatment was conducted to the experimental group. The experimental group taught by using Jigsaw Strategy and Think-Pair-Share Strategy.

**Activities in Class (Treatment)**

<table>
<thead>
<tr>
<th>No.</th>
<th>Activities</th>
<th>Time Allotment</th>
</tr>
</thead>
</table>
| 1.  | 1. Teacher explained about the Jigsaw strategy  
2. Teacher explained how to use Jigsaw strategy  
3. Teacher explained the group | 2 X 45 minutes |
| 2.  | 1. Teacher reminded students about the Jigsaw strategy  
2. Teacher showed the example group of jigsaw Strategy | 2 X 45 minutes |
3. Teacher divided students into groups.
   1. Teacher gave each group the material.
   3. Teacher asked every group to tell and share based on the material. The situation is like doing presentation.

<table>
<thead>
<tr>
<th>No.</th>
<th>Activities</th>
<th>Time Allotment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>1. Teacher introduced students to the Think-Pair-Share Strategy</td>
<td>2 X 45 minutes</td>
</tr>
<tr>
<td></td>
<td>2. Teacher asked the students to respond about Think-Pair-Share strategy.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Teacher and students made conclusions about Think-Pair-Share strategy.</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>1. Teacher made a review of the last lesson.</td>
<td>2 X 45 minutes</td>
</tr>
<tr>
<td></td>
<td>2. Teacher asked students to share their opinions of the Think-Pair-Share</td>
<td></td>
</tr>
<tr>
<td></td>
<td>strategy.</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>1. Teacher asked every student to think, pair, and share the material.</td>
<td>3 x 45 minutes</td>
</tr>
<tr>
<td></td>
<td>2. Teacher asked the students to do it with a group (in pairing).</td>
<td></td>
</tr>
</tbody>
</table>

**Post-Test**

After giving the treatment, the writer gave a test to the class, which one taught in the Jigsaw strategy and Think-Pair-Share strategy group. Then, they collected their scores. The data was analyzed using ANOVA with two variables by comparing the scores in the Jigsaw strategy and Think-Pair-Share strategy. The two groups were compared to apply the test to know how significant the effect of applying the Jigsaw strategy and Think-Pair-Share strategy on the Teaching speaking. The formula of the F-Test Anova one way is:

\[
\frac{M_1 - M_2}{\sqrt{M_2 + \left(\frac{1}{n}\right)}}
\]

**Scoring of the Test**
In scoring the test, the assessors gave assessments, pronunciations, vocabulary, accuracy and grammar of the students. According to the Foreign Services Institute (FSI) Analytic Rating Scale, in Sullivan (2008:22), the writer will use scores ranging from 0 - 100 by counting the correct answer and applying this formula:

\[ \bar{X} = \frac{X_1 + X_2}{2} \]

Where: \( \bar{X} \) = the score of the student

\( X_1 \) = the score of student from first assessor

\( X_2 \) = the score of student from second assessor

<table>
<thead>
<tr>
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<th>Criteria</th>
<th>Score</th>
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<tbody>
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<td>30-27</td>
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<td></td>
<td>Good To Average</td>
<td>26-22</td>
</tr>
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<td></td>
<td>Fair to poor</td>
<td>21-17</td>
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<tr>
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3) Fair to Poor: Limited knowledge of subject, little substance, inadequate development of the topic.
4) Very Poor: Does not show knowledge of subject, on substantive, not pertinent, or not enough to evaluate.

In the scoring system, the students’ scores were taken from the average scores from both assessors. For instance, the writer gives seventy (70) while the teacher gives seventy three (60). Since the assessors give different score, the average score will be taken from both assessors. The student’s final score is sixty five (65).

In order to get the score of each student, the formula below will apply:
Validity of the Test

According to Bachman (1990: 25), ‘‘validity is quality of test interpreted use. It addressed the question whether or a measurement technique is really measuring what it purposed to be measured’’. According to Weir (1988: 23-29) there are three kinds of validity, there are: construct validity, content validity, and constructive validity. This research applied content validity that concerned how well the test measure because the instrument represented all the material that measured according to curriculum..

Experimental Studies is one of method used in gathering evidence for construct validity. Construct validity is concerned with the extent to which a test measures a specific trait or construct. It is the type of validity that is essential for tests that are used to assess individuals on certain psychological traits and abilities. Some common examples of constructs are intelligence, motivation, reasoning ability, attitudes, critical thinking, reading comprehension and self-concepts.

In order to know the mean of the scores, this formula below will be applied:

\[
\bar{X} = \frac{\sum X}{N}
\]

\(\bar{X}\) : Mean of scores
\(\sum X\) : Total of Students’ Score
\(N\) : Number of Students

3. The Data Analysis

The data of this research was taken from the result of adjudication sheets which were used by the writer and the teacher to record students’ score during speaking. In pre-test, students were asked to answer several questions based on the material. From the students’ answers the teacher marked their scores one by one. The data were obtained from pre-test and post-test scores of the experimental and the control groups. Here is the result of the speaking that did in pre-test and post-test:

<table>
<thead>
<tr>
<th>No</th>
<th>Students’ initial</th>
<th>Pre-test (T1)</th>
<th>Post-test (T2)</th>
<th>T2-T1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AA</td>
<td>62</td>
<td>60</td>
<td>20.5</td>
</tr>
<tr>
<td>2</td>
<td>AR</td>
<td>67</td>
<td>65</td>
<td>5.5</td>
</tr>
<tr>
<td>3</td>
<td>AN</td>
<td>57.5</td>
<td>60</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>AK</td>
<td>62.5</td>
<td>65</td>
<td>15</td>
</tr>
<tr>
<td>5</td>
<td>DM</td>
<td>54</td>
<td>60</td>
<td>16</td>
</tr>
<tr>
<td>6</td>
<td>HAL</td>
<td>60</td>
<td>50</td>
<td>12.5</td>
</tr>
<tr>
<td>7</td>
<td>IS</td>
<td>52.5</td>
<td>50</td>
<td>12.5</td>
</tr>
<tr>
<td>8</td>
<td>JAS</td>
<td>42.5</td>
<td>50</td>
<td>27.5</td>
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<tr>
<td>9</td>
<td>JH</td>
<td>62.5</td>
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<td>5</td>
</tr>
<tr>
<td>10</td>
<td>MB</td>
<td>67.5</td>
<td>60</td>
<td>12.5</td>
</tr>
<tr>
<td>11</td>
<td>MR</td>
<td>67.5</td>
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<td>7.5</td>
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<td>12</td>
<td>MZ</td>
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</tr>
<tr>
<td>13</td>
<td>PNS</td>
<td>50</td>
<td>65</td>
<td>15</td>
</tr>
</tbody>
</table>
### Table 4.2
Total score of pre-test and Post-test of Think-Pair-Share Strategy

<table>
<thead>
<tr>
<th>No</th>
<th>Students’ initial</th>
<th>Pre-test (T1)</th>
<th>Post-test (T2)</th>
<th>T2-T1 (d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>AR</td>
<td>62</td>
<td>65</td>
<td>3</td>
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<tr>
<td>2</td>
<td>ATS</td>
<td>67</td>
<td>70</td>
<td>3</td>
</tr>
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<td>AAL</td>
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<td>65</td>
<td>7.5</td>
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<td>ADA</td>
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<td>65</td>
<td>2.5</td>
</tr>
<tr>
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<td>BA</td>
<td>54</td>
<td>70</td>
<td>16</td>
</tr>
<tr>
<td>6</td>
<td>DV</td>
<td>60</td>
<td>70</td>
<td>10</td>
</tr>
<tr>
<td>7</td>
<td>DUT</td>
<td>52.5</td>
<td>65</td>
<td>12.5</td>
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<td>42.5</td>
<td>65</td>
<td>22.5</td>
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<td>FAS</td>
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<td>70</td>
<td>7.5</td>
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<tr>
<td>10</td>
<td>FD</td>
<td>67.5</td>
<td>70</td>
<td>12.5</td>
</tr>
<tr>
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<td>JS</td>
<td>67.5</td>
<td>70</td>
<td>2.5</td>
</tr>
<tr>
<td>12</td>
<td>MLT</td>
<td>63</td>
<td>70</td>
<td>7</td>
</tr>
<tr>
<td>13</td>
<td>MIS</td>
<td>50</td>
<td>70</td>
<td>20</td>
</tr>
<tr>
<td>14</td>
<td>MS</td>
<td>70</td>
<td>75</td>
<td>5</td>
</tr>
</tbody>
</table>

The data above showed that there wasn’t the different score of pre-test and post-test. The means score of pre-test was 57.9 and the means of score in post-test was 60.68. the gap between the means score of pre-test and post-test was 2.78. the range of this data indicated that didn’t give effect on students speaking ability.
Table 4.3

Total score of pre-test and Post-test of Jigsaw Strategy

<table>
<thead>
<tr>
<th>No</th>
<th>Students’ initial</th>
<th>Pre-test (T1)</th>
<th>Post-test (T2)</th>
<th>T2-T1 (d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ASA</td>
<td>57.5</td>
<td>80</td>
<td>22.5</td>
</tr>
<tr>
<td>2</td>
<td>ADP</td>
<td>60</td>
<td>75</td>
<td>12.5</td>
</tr>
<tr>
<td>3</td>
<td>DC</td>
<td>62.5</td>
<td>75</td>
<td>7.5</td>
</tr>
<tr>
<td>4</td>
<td>DYP</td>
<td>60</td>
<td>70</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>DPN</td>
<td>62.5</td>
<td>57.5</td>
<td>15.5</td>
</tr>
<tr>
<td>6</td>
<td>FH</td>
<td>55</td>
<td>70</td>
<td>15</td>
</tr>
<tr>
<td>7</td>
<td>JA</td>
<td>52.5</td>
<td>75</td>
<td>12.5</td>
</tr>
<tr>
<td>8</td>
<td>KK</td>
<td>47.5</td>
<td>65</td>
<td>12.5</td>
</tr>
</tbody>
</table>

From the data above showed that there was different score of pre-test and post-test. The means score of pre-test was 57.09 and the means of score in post-test was 70.2 the gap between the means score of pre-test and post-test was 12.3 The range of this data indicated that there was significant progress during teaching and learning using Think-Pair-Share Strategy.

\[
\frac{M_1 - M_2}{\sqrt{MS_w \left( \frac{1}{n} \right)}} \Rightarrow \frac{70.2 - 50.7}{\sqrt{12.3 \left( \frac{1}{25} \right)}} = 8.28
\]
Based on the research result of XI\textsuperscript{1} and XI\textsuperscript{2} students, after they got treatments in teaching speaking in descriptive text by using Jigsaw strategy and Think-Pair-Share Strategy. They reached the maximum score 90 and minimum score 60. From the computation of frequency distribution, it was found the total score of Conventional Teaching (CT) = 1517, So, the average score (X) was 60.68 and the total score of Think-Pair-Share (TPS) = 1722 So, the average score (X) was 70.2 and The Total score of Jigsaw Strategy (JS) = 1860 So, the average score (X) was 77.5. It meant that there was an improvement of students score after they got treatments.

\[
\frac{M_1 - M_2}{\sqrt{MS_w \left( \frac{1}{n} \right)}} = 15.25
\]

From the data above showed that there was different score of pre-test and post-test. The means score of pre-test was 57.09 and the means of score in post-test was 77.5 the gap between the means score of pre-test and post-test was 18.45 The range of this data indicated that there was significant progress during teaching and learning using Jigsaw Strategy.
From the score of the tests, a calculation was made to find out whether the Think-Pair-Share strategy and Jigsaw Strategy significantly affects students speaking ability.

Table 4.4 ONE WAY ANOVA Tukey’s Test

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>5127</td>
<td>3</td>
<td>1709</td>
<td>27.44</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1557</td>
<td>25</td>
<td>62.28</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6684</td>
<td>28</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[
MS_{\text{Bet}} = N \cdot s_{X}^2 = 9 \cdot 2.9768 = 26.79
\]

\[
MS_{\text{With}} = \frac{s_1^2 + s_2^2}{2} = \frac{28.50 + 18.11}{2} = 23.305
\]

\[
F_{\text{obs}} = \frac{MS_{\text{Bet}}}{MS_{\text{With}}} = \frac{26.79}{23.305} = 1.15
\]

\[
F_{\text{crit}} = F_{1.16} = 4.41 \quad \alpha = .05 \text{, non-directional test}
\]

From the criteria of the hypothesis, \( H_0 \) is accepted if \( F \) Test > \( F \) Tabel. From the calculation above, it is found the \( F \) Test is higher than \( F \) Tabel or can be seen as follows:

\[
F_{\text{Test JS}} > F_{\text{Test TPS}} > F_{\text{Test CT}} > F_{\text{tabel}}
\]

6.23 > 4.23 > 2.95 > 2.92

Thus, the alternative hypothesis (\( H_a \)) is accepted at the level of significance 0.05. It means that “there is a significant effect of using Jigsaw Strategy and Think-Pair-Share strategy on students’ speaking ability”

From the result of the \( F \) the writer concludes that the hypothesis is acceptable. The \( F \)-test is higher than \( f \)-table value. Therefore, the writer states that after applying cooperative learning strategy in speaking English classroom, the students’ speaking skill improves significantly.

**Research Findings and Discussion**

Based on the data analysis above, Jigsaw strategy and Think-Pair-Share strategy give significant influence to the students’ achievement in speaking. The students got improved in speaking. In teaching and learning process, the students paid attention to the teacher’s explanation. The students were interested with the Jigsaw and Think Pair Share strategy.

In this research, Jigsaw Strategy is more improve students’ scores in speaking than Think-Pair-share strategy. Think-Pair-Share strategy is more improve students scores in speaking then conventional teaching method.

**Discussions**

The data were obtained from the students achievement scores of the test of speaking in descriptive text. They were pre-test and post-test scores from the experimental (Jigsaw and Think-Pair-Share strategy) and control group (Conventional Teaching Method). The average score of experimental group Jigsaw Strategy was 57.2
(pre-test) and 76.75 (post-test). The average score for experimental group of Think-Pair-Share Strategy was 57.9 (pre-test) and 70.2 (post-test). The average score for control group using Conventional Teaching Method was 57.9 (pre-test) and 60.68 (post-test). The following was the simple tables of pre and post-test students in Jigsaw strategy, Think-Pair-Share strategy and Conventional Teaching.

### Conclusion

After doing research in SMA Gajah Mada Medan, the writer can see the improvement of students. Based on the previous discussion, the writer gets the conclusion of this research as follows:

1. Jigsaw Strategy is one of the ways that can be used to improve students’ speaking ability in teaching and learning process specially in speaking, besides it also motivates and encourages them to deliver their arguments and ideas.
2. Think-Pair-Share Strategy also the ways and can be applied to improve students’ speaking ability in teaching speaking because most of Indonesian students are lack of idea for what they should say and bravery to speak, because of that they are afraid for doing mistakes, so they need friend to express their idea.

It was proved by the obtained score of F test. The F-test showed that t-score of Jigsaw Strategy was more higher than F-score of Think-Pair-Share strategy and score of Think-Pair-Share strategy was more higher then score of Conventional teaching method. It meant that Ha (alternative hypotheses) was accepted and Ho (null hypotheses) was rejected.

After doing this research, the writer finds some suggestions, they are:

1. The English teacher can apply Jigsaw strategy in speaking class to improve their speaking.
2. Both teacher and students should be ready in applying the process of teaching and learning in speaking by using Jigsaw and Think-Pair-Share strategy

### References

Anthony, R. R. 1963. *Technique is the specific activities in the classroom*. USA: Colombia University.


Harmer, J (1990) *How to teach English An Introduction to the practice of English Teaching*: USA


Manurung Yayuk Hayulina. 2009. *Improving Students speaking ability through cooperative learning strategy*. Medan: Unimed


