

**IMPROVING THE STUDENTS' SPEAKING ABILITY BY USING
MIND MAPPING AND GUIDED QUESTIONS AT FOURTH SEMESTER OF
ENGLISH EDUCATION STUDY PROGRAM
AT ISLAMIC UNIVERSITY OF INDRAGIRI TEMBILAHAN**

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Abstract

This objective of this research is to know whether Mind Mapping is more effective than Guided Question in teaching speaking for fourth semester of English education study Program at Islamic University of Indragiri Tembilahan. In experimental research, the researcher deals with the research instrument of collecting data: (1) giving the pre-test (2) dividing the classes who have Mind Mapping and Guided Question (3) applying the teaching technique to the students (4) giving post test, and (5) analyzing the students' score to decide the teaching technique whether or not it is effective. The research findings show that the use of Mind Mapping can affect the students' speaking ability optimally. It is proved from research findings which t-observed value 3.189 is higher than t-table of 1.671 at the significant level of 5% which means that the Mind Mapping is more effective than Guided Question to speaking ability; therefore it is recommended that the lecturers are suggested to apply Mind Mapping in speaking activity, to be more creative and innovative in using various kinds of interesting teaching technique with accompany the materials.

Keywords: *Effectiveness, Mind Mapping, Guided Question, and Speaking Ability.*

Abstrak

Tujuan penelitian ini adalah untuk mengetahui apakah *Mind Mapping* lebih efektif daripada *Guided Questions* dalam mengajar berbicara untuk semester keempat Program studi pendidikan Bahasa Inggris - Universitas Islam Indragiri Tembilahan. Dalam penelitian eksperimental, peneliti menggunakan instrumen penelitian guna pengumpulan data: (1) memberikan tes awal (*pre-test*) (2) membagi kelas yang menggunakan *Mind Mapping* dan *Guided Questions* (3) menerapkan teknik pengajaran kepada siswa (4) memberikan tes akhir (*post test*), dan (5) menganalisis skor siswa untuk menentukan apakah teknik mengajar yang digunakan efektif atau tidak. Hasil penelitian menunjukkan bahwa penggunaan *Mind Mapping* dapat mempengaruhi kemampuan berbicara siswa secara optimal. Hal ini dibuktikan dari hasil penelitian nilai t-hitung 3,189 lebih besar dari t-tabel 1,671 pada tingkat signifikan 5% yang berarti bahwa *Mind Mapping* lebih efektif dari pada *Guided Questions* pada keterampilan berbicara. Oleh karena itu, dosen disarankan untuk menerapkan *Mind Mapping* dalam kegiatan berbicara, untuk lebih kreatif dan inovatif dalam menggunakan berbagai macam teknik dan bahan mengajar yang menarik.

Kata kunci: *Efektivitas, Mind Mapping, Guided Questions, dan Kemampuan Berbicara.*

1. INTRODUCTION

Speaking ability is related to communicative competence. The objective of teaching spoken language is the development of the ability to interact successfully in that language and, that is involves comprehension as well as production. The describing criteria levels are: Accent, Grammar, Vocabulary, Fluency, and Comprehension. It means that communicative competence is the aspect of competence that enables to convey and interpret the message and to negotiate meanings inter-personally within specific context.

Students' difficulties in speaking can be seen from their product. The difficulties are related to their ability in speaking. They do not have enough vocabularies to arrange the sentence to have a good speaking. The other difficulties come from the lack of ability in mastering grammar. Those difficulties may emerge due to the differences between Indonesian and English. Such difficulties should be overcome in order to optimize the teaching and learning process.

Based on interviewing to the English lecturer, the factors influenced in students' result on competence are

less motivation and passive in learning. It can be seen as the one student who active. The other student are just listening, waiting, and receiving the information rather than active thinking and also lazy to take a note. The result the lecturer centered happened. Another factors are the students are always forget toward the lesson, it can be proven as the students cannot speak based on task given and students do not comprehend the material.

The students' ability to use language in second language has been central focus of attention (Lauma, 2004: 90). It focuses on differences learners and native speaker rather than the development of pragmatic skill. It tends to learners' acquisition of syntax rather than pragmatics. Language testing research is about the progression of students' speaking ability, therefore the focus of the research that is related to the concrete products of the development process.

To improve the aspects of speaking task, the material needs should treat a method in learning to raise sense of learning. The fact, the students are still under the competency. By using variation of technique in teaching, it will be more interested in learning.

Related to the problem above, the English lecturer can use some techniques to teach speaking. The use technique can be a solution to solve these problems; one of them is Mind Mapping.

Mind Mapping is a strategy in teaching process to activate right and left brain balanced. Cosco (1996) stated that the key idea crystallizes the subject of attention while the branches represent the connections established with the central idea, forming a connected nodal structure. Mind Mapping contains pictures, colors, lines, words to help students to remember, giving an idea, and making more effective and efficient learning. Mind Mapping needs to be implemented because it (1) will encourage students in communication process, (2) remember the words, (3) broader the knowledge, and (4) make short the teaching and learning process.

To identify the problems, the researcher has done identifications of the problems related to the classroom interaction that is comes from the students. Students as center part of the learning and teaching in the classroom did not show their motivation and interest to take part in the classroom

activities. There were only few students who gave responses to the lecturer when he gave explanation while the others just kept silent when the lecturer asked them. Yet the students understood and they had willingness to do the task given by the lecturer, it was not the final goal of the English learning in a classroom. Thus, the students as participants in the teaching and learning process had a significant influence to the classroom activity.

The second problem is related to the lecturer. A lecturer needs to be a good educator. They need to have a good command on the subject matters that they are teaching. This is of vital importance because the most important job of a lecturer is to teach. So the lecturer must have a good knowledge when they are conveying the material in teaching learning process. This will promote classroom activities in teaching and learning process.

The third problem is related to the teaching materials. Materials can be set up by the lecturer from various resources. Formal learning content material is contained in the official text. While the material is in formal learning materials are sourced from the relevant environment. The teaching materials

used by the lecturer have been taken from various resources but learning media was not used by the lecturer. Those materials were done by the students in every meeting of the lesson.

2. REVIEW OF LITERATURE

Speaking

a. The Definition of Speaking

Speaking is "the process of building and sharing meaning through the use of verbal and non-verbal symbols, in a variety of contexts" (Chaney, 1998: 13). Speaking is a crucial part of second language learning and teaching. The goal of teaching speaking should improve students' communicative skills, because, only in that way, students can express themselves and learn how to follow the social and cultural rules appropriate in each communicative circumstance. In order to teach second language learners how to speak in the best way possible, some speaking activities are provided.

A successful speaking activity in the classroom have organized as teacher or participated as students. Here the classroom activities develop learners' ability to express themselves through speech yet it is difficult to design and administer the activities. This leads the

effective speaking ability. Characteristics of successful speaking activity are namely; (1) learners talk a lot, (2) participation is even, (3) motivation is high, (4) the language is an acceptable level.

b. The Purpose of Speaking

Speaking is one of the four skills in the language activity. It is an important skill to convey in the communication. It means that to combine the elements of content needs some criteria of speaking ability. In line with this, Hughes (1989: 102) stated the fact that particular grammatical structure are not specified as content, and that there is no references to vocabulary or pronunciation, does not of course mean that there are no requirements with respect to these elements of oral performance. The objective of teaching spoken language is the development of the ability to interact successfully in that language and, that is involves comprehension as well as production. Hughes (1989: 111-112) propose the describing criteria levels are: Accent, Grammar, Vocabulary, Fluency, and Comprehension.

c. Speaking Skill

Communicative competence is the aspect of our competence that enables us to convey and interpret the message and to negotiate meanings interpersonally within specific context. Speaking abilities consists of mental and physical act which are interrelated and which must take place instantaneously and simultaneously. They consider speaking as a complex skill that involves the knowledge of sounds, structures, vocabulary, and culture subsystems of language.

To express oral ability to learners, it needs for speaking skill, meaning that activities offered in the teaching and learning ought to support students' motivation to speak. Brown (2004: 151) stated one of the more popular ways to elicit oral language performance at both intensive and extensive levels can stimulate speak up pragmatically.

d. Speaking Assessment

Speaking is another area it is very difficult to assess one's performance (Harris, 1994: 79). Teaching and learning process has an effect, namely

backwash. What should the teacher teach in speaking is relevant with the assessment.

In the academic, extensive speaking involve complex. They are frequently variations of monologue usually with minimal verbal interaction. In the oral presentation must be represented of oral assessment. Brown (2004: 179) the rules of effective assessment must be invoked: (a) specify of criterion, (b) set appropriate task, (c) elicit formal output, (d) establish practical, reliable scoring procedure.

The scoring of the interview can range from an impression mark to a mark arrived at on the basis of detailed marking scheme. It shows on pronunciation, grammar, vocabulary, appropriacy, fluency.

Mind Mapping

a. The meaning of Mind Mapping

All Mind Mapping begin with a main concept or idea that the rest of the map revolves around, so choosing that idea or topic is the first step. Begin by creating an image or writing a word that represents that first main idea.

From that main idea, create branches (as many as needed), that each represent a single word that relates to the main topic. It's helpful to use different colors and images to differentiate the branches and sub-topics.

Then, create sub-branches that stem from the main branches to further expand on ideas and concepts. These sub-branches will also contain words that elaborate on the topic of the branch it stems from. This helps develop and elaborate on the overall theme of the mind map. Including images and sketches can also be helpful in brainstorming and creating the sub-branch topics.

Steps in making Mind mapping are:

- 1) Select a topic.
- 2) Think of a visual that captures the essence of that topic and place that visual in the center of the paper using colors.

- 3) Record all the ideas that come to you - this can be personal or group brainstorming.
- 4) Draw a picture or symbol that represents each of the key ideas you brainstormed.
- 5) Flow with ideas radiating out from each of those key ideas; again, think of visuals that capture the essence of that idea and place them in a way that makes sense to you. Then, place the word by the visual. Again, connect with lines.
- 6) Explore the relationships between different aspects of the map.

Mind Mapping is a technique of whole brain using visual imaginary and other graphic infrastructure for impression formation. Aini (2012: 131) stated that:

“Mind Mapping adalah sebuah organisator yang kategori utamanya menyebar dari ide pusat dan sub-kategori diwakili cabang-cabang dari cabang yang lebih besar. Guru dapat menggunakan Mind Mapping untuk meningkatkan pembelajaran.”

Meaning that Mind Mapping is a technique that allows to graphic exploration all ability to think and learn. Mind Mapping can lead the students to manage the priority of integration the good material. Therefore the students

will be more creative, active and systematically.

.The main use of Mind Mapping is to create an association of ideas. It is generally easier to remember a diagram than to remember a description. Others have suggested, however, that content is more central to learning than the format in which that content is presented.

b. Advantages of Mind Mapping

The advantages of Mind Mapping include its “free-form” and unconstrained structure. There are no limits on the ideas and links that can be made, and there is no necessity to retain an ideal structure or format. Mind Mapping thus promotes creative thinking, and encourages “brainstorming”.

Mind mapping simply optimizes the power that already has in mind. There are several fundamental principles; these are the most critical ones for Mind Mapping:

1. Pictures

What the students see, the students will remember. Students have an enormous capacity to remember pictures and images. The brain constantly takes "photos" of student's

life and stores these in a gigantic photo album inside students' head, and the students can actually retrieve them at any given moment. This is very critical for mind mapping, since it is much easier to remember a picture than it is to remember long lines of pure text.

2. Headline

It is far easier to remember single words, short phrases and striking headlines than to remember pure text. This is quite self-explanatory could try to quote this entire chapter through hundreds of hours of studying - and surely fail anyway. Or one could simply write down a headline for each important point.

3. Connection

Consciousness always analyzes how things are connected to each other. And when that is done, the mind creates an image to symbolize the structure. A lot of the brain's work is based on association and it automatically links different subjects together to create a system. It is important to let the brain work the way it wants and help it, instead of forcing it to take a certain direction. Your brain will be much happier and when it appreciates your help it rewards you with knowledge and the power to remember.

A Mind Mapping gives information that includes a central idea surrounded by connected branches of associated topics. Mind Mapping gives: (1) students brainstorm and explore any idea, concept, or problem. (2) Facilitate better understanding of relationships and connections between ideas and concepts. (3) Easy to communicate new ideas and thought processes. (4) Students to easily recall information. (5) Students take notes and plan tasks. (5) Easy to organize ideas and concepts.

c. Teaching Procedure of Mind Mapping

Speaking ability by using Mind Mapping will lead the students to improve the speaking ability, logical thinking, writing, and scrutinize. The ideal condition which needs to implement or conduct is characteristics of Mind Mapping, namely; (1) choosing a good topic, (2) mastering in that topic, (3) knowing the background to introduce the prior knowledge, (4) knowing the situation, (5) having clear purpose, (6) having high linguistic and non-linguistic, (7) knowing the audience, (8) using media, (9) having good confidence, (10) having a good plan.

Guided Question

a. The Meaning of Guided Question

To assume the success in oral spoken English is the ability to communicate by using English. As a consequence the students should have a good ability in spoken language. The students should be able to use oral communication done in English class. It means the students are demanded to be more active in giving the response to each other (Hybels, 1986:18).

Giving questions for students openly can be categorized as authentic assessment but the questions given made students think highly and it is not simply questions of memorizing or defining a fact and concept. Based on pictures provided, it has to give pragmatic questions meaning that the questions intended enable students to express a language and understanding to the meaning content. It needs to note that not all questions are in pragmatic questions. The question is intended easily to answer. The students' response to the pragmatic question is possibly different. Hence, it requires the criteria of the answer.

In order to make students easier in constructing the sentences grammatically and let them be able to speak fluently, the researcher used guided conversations by using short conversations as the technique. Guided Conversations are the dialogues and the question and answer exchanges. Students are presented with a model conversation which has a clue as well as a topic to elaborate students' idea in speaking.

b. Advantages of Guided Question

The goal of Guided Question is to tackle a specific grammatical structure and give students the opportunity to rehearse this structure in short, playful classroom conversations (Molinsky and Bliss, 1983: 10). That is why the appropriate technique in improving the students' ability in speaking is by using Guided Question. Giving students the opportunity to rehearse specific language forms will support;

- a) Children have opportunities to clarify what has been said.
- b) Teachers can assess understanding by the child's response.
- c) Oral language is more repetitive than written language so children

can hear the same idea expressed in different ways.

- d) Guided talk is linked to practical activities, giving a context providing immediate meaning.
- e) It deepens children's understanding of a particular written genre or curriculum-based topic through helping them learn the vocabulary and grammatical structures associated with that particular topic.

c. Teaching procedure of Guided Question

In accordance with Mcniff (1992:22), as a spiral of steps, Action Research has four stages: planning, acting, observing, and reflecting. Planning is teacher's preparation before doing the action. In this step the researcher prepares everything for the completion of action in the class like designing lesson plan, designing the Guided Question, verifying the schedule, and field note. The preparation can be seen as follows: (a) Steps of teaching within procedure of action, and activities in implementing actions towards problem solving as have been planned, (b) Prepare media and facility as needed in the classroom. (Prepare the focus to show the pictures, student's English books, dictionary), (c)

Prepare the way of observation such as scoring rubric and field note.

In other hand, Aquariza conducts a research with Descriptive Qualitative as a design of this research. The reasons why the researcher conducted this research here are: because RSBI class has sufficient proficiency to conduct successful teaching speaking. There are four instruments to collect the data. First is documentation related to lesson

3. METHOD

There are two main types of quantitative research design, experimental designs and non-experimental designs. Experimental designs are sometimes known as 'the scientific method' due to their popularity in scientific research where they originated. Non-experimental research is sometimes equated with survey research and is very common in the social sciences. When doing an experiment it will control the environment as much as possible and only concentrate on those variables to study. A control variable is a variable which is held constant in order to neutralize the potential effect it might have a behavior Hatch (1982: 16).

plan and syllabus, second is non-participant observation, third is interview to the teacher, and fourth is questionnaire to the students. The data shows there is any significant different by using Mind Map method. It can be concluded that the use of mind map is effective in teaching speaking skill. Moreover in the second research also shows the Mind Map has high power to make interaction in speaking activity.

In this study the researcher uses two groups; they are the experimental group which is taught by using Mind Mapping and the control group which is taught by using Guided Question. There would be a pre-test before the treatment was given to the experimental group and the control group, and after the treatment a post-test of the same instrument test was given to them. The score result in the pre and posttest then are compared to each other to know the differences.

This research conducted in the fourth semester of English Education Study Program at Islamic University of Indragiri Tembilahan. The steps in this research are; preparation,

implementation, analyzing of the data and reports the data.

Population is research in which all subjects involve become the research object. Population is generalization area which consists of subject who has quality and appointed characteristic that is decided by the research to learn and to be concluded. Arikunto (2006: 108) said that a population is a set of all elements possessing one or more attribute of interest. It became sample.

According Arikunto (2006: 109) sample is a part or representative population to be observed. The numbers of samples in this research are 55 students. Here, it will have two samples because these classes have similar characteristic. In Accountancy would have experiment class and Multimedia class would have control class.

There are two classes of the fourth semester of English Education Study Program at Islamic University of Indragiri Tembilahan and the researcher took two of them as the sample of the research. Each class consists of 21 students and 20 students. The total number of the students for research amounted to 41 students. The researcher used a sampling technique to reduce a large volume of the data to make

generalization of a population. The researcher chooses the two classes on the base of their similar characteristics. There are Accountancy class consisting of 21 students and Multimedia Class consists of 20 students. The classes were divided into two groups, Accountancy class will have Mind Mapping in teaching process and Multimedia class will have Guided Question.

The researcher would like to use a test and treatment in this research. According to Arikunto (2006: 25), the method or technique of data collection can be classified in to two; the test and non-test. Based on the statement above, the instrument which will use to collect the data is speaking test. A test is a series of question or exercises and another instrument which is used to measure the skill, intelligence knowledge, ability or talent, which have by someone or group. By giving the test to the students, the writer will get a score related to measure the students' speaking ability. The pre-test will give in the first time of the experiment and post- test will give after the experiment done. Test is given both two groups which have same criteria then it will be

analyzed to get the answer the problems in hypothesis formulated.

The researcher will give pre and post-test to both groups; experimental and control group. The purpose of giving the pre and post-test is to know the result of the effectiveness of teaching by using Mind Mapping in teaching what if conditional on the speaking ability of the fourth semester of English Education Study Program at Islamic University of Indragiri Tembilahan in which control group does not give a Mind Mapping related with the material.

According to Tuchman and Ebel in Nurgiyantoro (2010:155) validity refers to whether or not a test measures what it supposed to measure. To measure the validity of the speaking interview test, the researcher uses *content validity* and *constructs validity*. *Content validity* is a test to measure how the test matches with the syllabus of that school. Content

validity focuses on what the test has a suitable to the purpose and the description of the material given. *Constructs validity* is used to examine whether the test has representation and consistent with the theories underlying the subject being tested.

The type of reliability is particularly relevant for speaking assessment. The first is intra-rater reliability or internal consistency, (Lauma: 2004: 179) asserted that raters agree with themselves, over a period of a few days, about the rating they have. Meaning that speaking assessment is based on human rating, and it is cannot be assumed automatically. They do not necessarily need to agree completely.

In scoring value to each subject, the researcher was using weighting table (Oller, 1979), as follows:

Table 2. Weighting Table on Speaking

Proficiency Description	1	2	3	4	5	6
Accent	0	1	2	2	3	4
Grammar	6	12	18	24	30	36
Vocabulary	4	8	12	16	20	24
Fluency	2	4	6	8	10	12
Comprehension	4	8	12	15	19	23

The technique used in this research is using inter-rater that there are two people who give score of the test. To test the reliability of the research instrument, the internal reliability test is used in this study. The writer would like to analyze the score by the instrument criteria which have consistency to the purpose of speaking in speaking test.

The data will collect from the study are statistically analyzed. In measuring the quantitative data collects after the study, means and standard deviations of the pre- and post-treatment oral tests in the experimental

and control groups are compared using t-tests. Descriptive analysis is statistic which has a function to describe or interpret the object of the research from the sample data of population without any analysis or make any summaries for general. The writer in this case calculated the mean, standard deviation and ideal mean and ideal standard deviation the writer find out the degree of students' ability in speaking based on the mean and standard deviation. Lastly, the interviews with study teacher and students are analyzed and interpreted qualitatively by the researcher.

4. FINDINGS AND DISCUSSION

4.1 Finding

a. Student's Speaking Ability Taught by Using Mind Mapping

1) Pre Test Score of the Experimental Group

The data analysis of speaking test score consists of the number of students, the maximum score and the minimum score, mean, and standard deviation, of the experimental group. The lowest score for experiment group

was 34.00 and the highest was 72.00. The mean score for experiment group was 53.30 and standard deviation was 10.38.

The value of ideal mean for the pre-test is 59,4 and the ideal standard deviation is 14,85. The account result of the classification of the student's score based on the ideal mean and the ideal standard deviation is presented in the table below:

Table 3. The Conversation Criterion by Five Scales

Formula	Scale Number	Category
$X \geq Mi + 1,5 SDi$	81,675-99,00	Very good
$Mi + 0,5 SDi \leq X < Mi + 1,5 SDi$	66,825-< 81,675	Good
$Mi - 0,5 SDi \leq X < Mi + 0,5 SDi$	51,975-< 66,825	Fair
$Mi - 1,5 SDi \leq X < Mi - 0,5 SDi$	37,125-< 51,975	Poor
$X < Mi - 1,5 SDi$	0,00 < 37,125	Very Poor

In frequency, the students' Break down of students' score is as speaking ability on experiment can follows:

Table 4. The Categorization of Students' Mastery of Pre-Test Experiment Group

Category	Range	Frequency	Percentage
Very good	81,675-99,00	0	0%
Good	66,825-< 81,675	3	10.7%
Fair	51,975-< 66,825	10	32.1%
Poor	37,125-< 51,975	6	50.0%
Very Poor	0,00 < 37,125	2	7.1%
	SUM	21	100%

In pre-test, there were 3 students (10.7%) who belonged to category *good* with score 66,825-< 81,675. There were 10 students (32.1%) who belonged to the category *fair* with the score 51,975-< 66,825. There were 6 students (50%) who belonged to category *fair* with the score 37,125-< 51,975. Then there were 2 students (7.1%) who belonged to *very poor* category with the score 0,00< 37,125.

2) Post Test Score of the Experimental Group

After having average similarity test by t-test in pre-test, it can be concluded that there is no difference

between students on Accountancy class and Multimedia class 1. After both class having a treatment, learning outcomes is measured. As to the post test, the data shows that the highest score of the post test is 76.00 and the lowest is 44.00. The analysis of the data gives information that the mean score is 62.95 and the standard deviation is 10.75.

The value of ideal mean for the pre-test is 59,4 and the ideal standard deviation is 14,85. The account result of the classification of the student's score based on the ideal mean and the ideal standard deviation is presented in the table below:

Table 5. The Frequency of the Post Test Score of the Experiment Group

No	Scores	Frequency	Percentage	Category
1	81,675-99,00	3	10.7%	Very Good
2	66,825-< 81,675	4	21.4%	Good
3	51,975-< 66,825	11	53.6%	Fair
4	37,125-< 51,975	3	14.3%	Poor
5	0,00 < 37,125	0	0%	Very Poor
	Total	21	100%	

In post-test there were 3 students (10.7%) who belonged to *category very good* with score 81,675-99,00. There were 4 students (21.4%) who belonged to the *category good* with the score 66,825-< 81,675. There were 11 students with (53.6%) who belonged to *category fair* with the score 51,975-< 66,825. There were 3 students (14.28 %) who belonged to *poor* category with the score 37,125-< 51,975.

b. Student's Speaking Ability Taught by Using Guided Question

a) Pre-Test Score of the Control Group

Table 6. The Frequency Distribution of the Pre-test Score of the Control Group

Category	Range	Frequency	Percentage
Very good	81,675-99,00	0	0%
Good	66,825-< 81,675	1	3.7%
Fair	51,975-< 66,825	6	33.3%
Poor	37,125-< 51,975	12	59.3%
Very Poor	0,00 < 37,125	1	3.7%
	SUM	20	100%

In pre-test there was only 1 student or who got in the control group who belonged to *category good* with score 66,825-< 81,675. There were 6 students (33.3%) who belonged to the

The data analysis of speaking test score consist of the mean, the standard deviation, the maximum score and the minimum score of the control group. The lowest score for control group was 36.00 and the highest was 70.00. The mean score for experiment group was 52.35 and standard deviation was 7.43.

The value of ideal mean for the pre-test is 59.4 and the ideal standard deviation is 14.85. The account result of the classification of the student's score based on the ideal mean and the ideal standard deviation is presented in the table below:

fair category with the score 51,975-< 66,825. There were 12 students also (59.3%) who belonged to *category poor* with the score 37,125-< 51,975. There was 1 student (3.7%) who belonged to

very poor category with the score $0,00 < 37,125$.

b) Post-Test Score of the Control Group

The data analysis of speaking test score consist of the mean, the standard

deviation, the maximum score and the minimum score of the control group.

The summary of the data distribution of the speaking test of the control group can be seen in:

Table 7. The Result of the Post-test of the Control Group

Class	Number of Students	Max score	Min score	Mean	SD
Control Group	20	76.00	44.00	54.59	8.51

As to the post test, the data shows that the highest score of the post test is 76.00 and the lowest is 44.00. The analysis of the data gives information that the mean score is 54.59 and the standard deviation is 8.51.

The value of ideal mean for the post test is 59, 4 and the ideal standard deviation is 14, 85. The account result of the classification of the student's score based on the ideal mean and the ideal standard deviation is presented in the table below:

Table 8. The Frequency Distribution of the Post Test Score of the Control Group

No	Scores	Frequency	Percentage	Category
1	81,675-99,00	0	0%	Very Good
2	66,825-< 81,675	4	11.1%	Good
3	51,975-< 66,825	9	40.7%	Fair
4	37,125-< 51,975	7	48.1%	Poor
5	0,00 < 37,125	0	0%	Very Poor
	Total	20	100%	

In post-test there were 4 students (11.11%) who belonged to category *good* with score 66,825-< 81,675. There were 9 students (40.7%) who belonged to the *fair* category with the score 51,975-< 66,825. There were 9 students (48.1%) who belonged to category *fair* with the score 37,125-< 51,975.

c. The Significance Differences in Students' Speaking Ability

between Students Taught by Using Mind Mapping and that of Taught Guided Question.

The *t*-test formula is applied to test whether there are significantly different results of the two groups before the researcher gives the treatment to the experimental group. Based on the analysis which has been conducted with level significant 5% and

degree of freedom 53 it can be obtained $t_o < t_t$. It means there is no a difference between students. Both of those classes have similar ability on speaking ability before treatments.

1. Inferential Analysis

a. Test of Normality

Test of normality is intended to measure whether the data which is gotten has normal distributed or not. Based on the calculation of scores of the students on experiment group can be described that the data of the post-test in the experimental group is normal. From the table critical value of p (probability) with the significant level $\alpha = 0.05$, is higher than 0.05. We can see from the table in which the p value is $0.945 > 0.05$. It can be concluded that the data are in normal distribution.

b. Test of Homogeneity

Homogeneity test is conducted to know whether data are homogeneous or not. The data used in this test is the data from the beginning of the students' ability obtained from pre-test. Homogeneity was presented as a way to explore a distribution of variables.

Theoretically, if the value of the F-test obtained (F_o) is lower than that of

F-table (F_t), the population of the experimental and the control groups is homogenous. On the other hand, if the value of the F-test obtained (F_o) is higher than that of F-table (F_t) the populations of the experimental and the control groups is not homogenous. And if the probability is higher than probability obtained 0.05 (p), the population is homogenous. The result on pre-test is homogeneous. The probability of the test (p) is higher than 0.05 and the value of F_o (0.059) is lower than that of F table $F_{t5\%}$. The result on post-test is heterogeneous. The probability of the test (p) is lower than 0.05 and the value of F_o (0.203) is higher than that of F table $F_{t5\%}$.

In the hypothesis testing, the researcher used t -test to find out whether or not there is a significant difference between students taught using Mind Mapping and those taught Guided Question. The researcher used t -test to determine whether or not the difference between the means of the experimental group and the control group is significant. The calculation of hypothesis test which is conducted can be seen in more detail below:

Table 9. The result of t-test in the Post Test

Group	t_o	$t_{table}(\alpha)$	df	P(sig.)	Decision
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		= 5%))	
The result of post-test of experimental group and control group	3.189	1.671	53	0.002
				$t_0 > t_{table}$ There is a significant different between experimental group and control group.

The table above shows that the $t_0 > t_{table}$ or $3.189 > 1.671$ meaning that there is a significant difference between the two groups. Therefore, the hypothesis that there is a significant difference between students taught using Mind Mapping and those taught using Guided Question is accepted. The mean of the experimental group members who were taught by using Mind Mapping is higher than that of the control group who were taught using Guided Question. Thus it can be concluded that the teaching speaking by using Mind Mapping is more effective than the teaching speaking without using Mind Mapping.

The results of the analysis conducted by the researcher to determine whether or not the differences of learning achievement between students who taught using Mind Mapping and Guided Question using model testing t-test Independent hypothesis and which are more effective Mind Mapping or Guided Question on speaking ability in learning outcomes.

By testing the hypothesis, from the calculation of the t -observed value between the gained scores of the speaking test of the experimental group and the control group, it is known that t -observed value of 3.189 is higher than t -table of 1.671 at the significant level of 5% which means that the Mind Mapping is more effective than Guided Question to speaking ability.

The use of Mind Mapping on improving speaking ability in the classroom experiment proved to be more effective than Guided Question in speaking. This is because there is a different treatment of the sample. In the process of teaching the experimental group using Mind Mapping, in the learning process of students drawing a map which can lead them to recognize the topic and comprehend them into good sequencing in speaking. Brilliant student can develop skills while weak students will be helped to understand the problems faced.

In sum, using a mind-map technique in combination with group

interviews seemed to be appropriate for purpose. It was effective as it provided a lot of detailed information. It builds on connection to praxis, it creates a good

5. CONCLUSION

Generally, researcher noticed most of the students could already speak English in short sentences. Researcher later found out that this was because some of them were born, had not lived English speaking. Furthermore, the work load was very heavy. Speaking practice and giving feedback to fifty five students on a continuous basis was very demanding. The size of the classes (21 and 20 students) sometimes made it difficult for all students to have the opportunity to have speaking that were told during the study. Based on this, not all students may have had the opportunity to tell as many stories as they would have wanted, and not all may have received detailed feedback to help them in speaking on their learning and final lesson. This may have led to not giving equal opportunity for all learners to explore the method.

interaction between students, and it allows teachers' own talk about their everyday work to become visualized in an effective and clear way.

The research findings imply that the use of Mind Mapping in teaching speaking can affect students' speaking ability. It is proved by from research finding that students who taught using Mind Mapping have better speaking than those who are taught by Guided Question. It will make the students a central quickly concept.

The results of the study showed statistically significant changes in the improvement of students' speaking abilities, they indicate that tasks used in the treatment aroused students' interest in the speaking classes and increased oral communication in the classroom, which was the aim of the treatment. This study showed that it is worth experimenting further with Mind Mapping in classrooms and exploiting the role of tasks in students' higher motivation in classroom language learning.

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