

Improving Students' Speaking Ability by Using Speech Recognition Application at the Eighth Grade Students of Madrasah Tsanawiyah

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Abstract. Based on informal interview with the English teacher and preliminary study test of SMP Madrasah Tsanawiyah Miftahul Ulum Suco Lor had problem in speaking and it was shown by the average score of the preliminary test is 37% student get score more than 65. This study aimed to determine the learning process and the learning outcome of student's speaking ability during the English conversation. The type of research is classroom action research (CAR). The Procedure used is the model cycle. Based on the results of the study, the percentage of students in the first cycle of activity individually obtained 58,5% and in the second cycle students' activity individually obtained 95%. While the daily test results of students in the first cycle obtained average value 78,26% and 95,65% in the second cycle. It is proved that the learning process is a fan of student learning outcomes can be improved with the use of speech recognition application.

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INTRODUCTION

Speech recognition, also referred to as speech-to-text or voice recognition, is technology that recognizes speech, allowing voice to serve as the "main interface between the human and the computer". This Info Brief discusses how current speech recognition technology facilitates student learning, as well as how the technology can develop to advance learning in the future. Although speech recognition has a potential benefit for students, the technology has been inconsistently implemented in the classroom.

over the years. As technology continues to improve, however, many of the issues are being addressed.

When Researcher decided to search for a school to hold the research about Speech Recognition apps, Researcher tried to find a suitable school with a low student's English ability (Researcher will explain it later) and has the minimum number of students in a class (to make this research more efficient). So, Researcher found MTs Miftahul Ulum Sucolor as the suitable school for this kind. MTs Miftahul Ulum was built in 1998 by the founding father, H Abu Bakar. He formed a learning institution in Suco Lor Village because he wants to make the new generation of the villagers become a better generation. As for that time, almost every villager was a traditional farmer with a low-end education level. Years after years the institution grew bigger and now, they have complete set of school including Kindergarten (Diniyah), Elementary School (Ibtida'iyah), Junior High School (Tsanawiyah), and Senior High School (Aliyah) under the name of Miftahul Ulum institution.

Zaremba and Zhang hypothesize that, of the four macro-English skills, speaking seems to be the most important skill required for communication (Zaremba, 2006). Students who study English as a foreign language usually have limited opportunities to speak English outside the classroom (Zhang, 2009) and limited exposure to English speakers or members of the international community. This might be one reason for teachers to provide more situations and activities for students to strengthen their speaking competence. A good speaker synthesizes this array of skills and knowledge to succeed in each speech act.

The researcher is using one of the most brand-new speech recognition apps called Dragon Speech Recognition. These products are among others that Nuance Communications offers through Education licensing at "academic pricing" to qualifying educational individuals and educational. Further, Nuance offers a variety of software licensing programs such as their Open License Program (OLP) for volume needs. The value is cost-effectiveness over desktop products through the efficiency of a business-to-business relationship. Speech Recognition software is widely available to everyone at a reasonable price. There are several ways that the use of this type of software can improve the education of students. The specific problems are formulated as follow:

What is the role of Speech Recognition Application in improving student's speaking ability? How is this application able to improve the students' speaking ability of the eighth Grade Students of Madrasah Tsanawiyah?

METHODS

This research deals with classroom action research. According to Mettetal (2002-2003:7), Classroom Action Research (CAR) is systematic inquiry with the goal of informing practice in a particular situation. In short, classroom action research is intended to solve a problem in the classroom. Speech recognition application is used as attempt to help the students improve their speaking ability. In this research was done in collaboration with the English teacher. The collaboration is focused on planning, acting, observing, and reflecting. The design of this classroom research is illustrated in the following diagram.

Research Design

The research design is a design of a research used as a guideline to carry out the research. Arikunto et al (2006:16) there are four steps to do this research such as planning, acting, observing and reflecting. In the planning stage, lesson plan was constructed and instructional materials were prepared. Then, in the acting stage, all the activities set in the lesson plan was implemented. The observation stage was done during the implementation of the action. Finally, the reflection of the action was done to know whether the actions given to the subject can achieve the research objectives. Table 3.1 the research design (randomized control group pre-test and post-test).

Based on the research design above, the research procedures would be done by the researcher collaboratively with the English teacher. It would be described as follows:

1. Planning the actions (constructing the lesson plans and preparing the instruments). It must be prepared by the researcher as a teacher before the researcher starts teaching the student.
2. Acting from the actions in the first cycle (teaching speaking through Speech Recognition Application) done by the researcher.
3. Observing by making some data in the classroom while acting the action in the first cycle done by researcher.
4. Reflecting (giving the test). The results of the test must be checked; if the target has not been achieved from the score = 65 it means that the cycle will be continued to the next cycle. While the actions are successful if 75% of students achieved the target score = 65 or more.

Population

In this action research, the eighth-grade students of Madrasah Tsanawiyah Miftahul Ulum Suco Lor in The 2013 / 2014 academic year were chosen as the research area for some reasons. First, teaching speaking by using speech recognition application technique is suitable for Second Grade of Junior High School. Second, the headmaster gave permission to conduct the research at the school. Third, the researcher could collaborate with the English teacher. It was expected that she would be a good partner in this research.

Research Instrument

According to Arikunto (2006:160) stated that data collecting method is a way that is used by researcher to collect the data. In other words, data collecting method is the way to collect data on the research. And in the data collecting method is needed instrument as tool on collecting data. Arikunto (2006:160) stated that instrument is tool or facility that is used by researcher to collect the data.

There are many kinds of data collecting methods. They are test method, questioner, interview, observation, rating scale, and documentation (Arikunto, 2006:159). In this research, the researcher uses interview as the primary study, which is done to know the condition in the school before the research is done. And to get the data, the writer test method.

a. Interview

Arikunto (2006:155) stated, "Interview is a dialogue between interviewer and interviewee to get information". In other words, an interview or oral question is a dialogue conducted by the interviewer for obtaining information from the interviewees for the need of research.

Further, Arikunto (2006:156) stated that divides interviews into three types: unguided interview, guided interview, and free interview. In this research, the researcher uses free guided interview. This means that in this kind of interview, the interviewee is asked to answer the question freely, but still his answer must be based on the guideline which is made by interviewer. Besides, the interview in this research will be done individually, directly to the interviewee.

In this research, an interview is conducted before the action given to respondent. It deals with the primarily study to get information about teaching English specially in speaking skill, the students' problem in speaking, and curriculum used by the English teacher.

b. Test Method

According to Brown (2004:3) stated, "Test in a simple form is a method of measuring a person's ability, knowledge, or performance in a given domain" he adds "test as method is an instrument – a set of technique, procedures, or items – that requires performance on the part of the task-taker" (Brown, 2004:3).

The instrument in the test method is test. Arikunto (2006:149) said that the instrument of test method is test or items of test. It means that a test can be a method and it can be an instrument. As Arikunto (2006:150) said, "Test is a set of exercise or other instrument used to measure the skill, knowledge and attitude of an individual or group".

Based on the reason above, a test is a set of techniques, procedures, or items that are used to measure the skill, knowledge, and attitude of an individual or group. In this research, the test is items that are used to measure student's speaking ability after they do learn process on using hand puppet as media.

The researcher used an achievement test in the way of oral test. Arikunto (2006:151) said, "The achievement test is a test used to measure someone's result after learned things". In this case, the achievement test is a test that is used to measure the students' speaking ability after they learned a speaking task by using hand puppet as media on the learning process.

Further, Brown (2004:141) said there are five categories of speaking performance assessment tasks. They are:

- a. Imitative. It focused on the ability to simple parrot back (imitate) a word or phrase or possibly a sentence.
- b. Intensive. It focused on the production of short stretches of oral language designed to demonstrate competence in narrow band of grammatical, phrase, lexical, or phonological relationship.
- c. Responsive. It focused on interaction and test comprehension in a short conversation, standard greeting and small talk, simple request, and comments, and the like.

- d. Interactive. It's focused is the same as responsive but it is more complete conversation.
- e. Extensive. It focused on speech, oral presentations, and storytelling. (Brown, 2004:141)

Based on the categories above, the categories test in this research is the interactive oral test. It means the test is in the form of a conversation task. The researcher used these forms because the Eighth student in MTs. Miftahul Ulum Suco Lor has been had enough word that is important to be used in conversation to make the student practice English more.

The way of the test is as follow:

- a. make small group of students (three or four persons)
- b. give each group a conversation task.
- c. ask them to practice with the group about the task.

The teacher – the researcher - will control the activities in each group to know how the student's ability in speaking, and the teacher will help the student if they have problem. It is done to help the student not feel that they get test from the teacher, so they can enjoy when they practice.

The researcher gives score subjectively. And the test has two different score which is from the researcher and from the English teacher. To avoid subjectivity in judging the students' ability, the researcher used a recorder. Because of scoring speaking ability in elementary is still subjectively from the teacher, the researcher used rating scale that is based on some indicators of speaking ability, and it was consulted with the English teacher. The rating scale is as follow:

Table 1. The indicators of students' fluency in speaking are as follow:

Level	Indicators
4	Pronunciation of the words or sentences is clearly produced; the content is easy to be understood.
3	Mispronunciation of the words or sentences occasionally, produced the words or sentences.
2	The Pronunciation is influenced by the first language, required the concentration on listening.
1	The Pronunciation of the words or sentences is difficult to be understood, so it requires frequent repetition.

Table 2. The indicators of students' vocabulary in speaking test are as follow:

Level	Indicators
4	Vocabulary adequate to discuss special interest.
3	Choice of word sometimes inaccurate limitation of vocabulary prevents discussion of some common professional and social topics.
2	Vocabulary limited to basic personal.
1	Vocabulary inadequate for even the simplest conversation.

In constructing the test, there are criteria that have been had by the test, they are validity and reliability. Arikunto (2006:170) stated that, a good test must be valid and reliable". In other words, the good test is the reliable test and the valid test.

To know the reliability of the test, the researcher held a try-out test. There are eleventh items of the test that will be taken as an instrument.

The Procedures of Developing Instrument

To know if the test is suitable or not to the research instrument, the researcher analyzed the test intended to try out. It means that, to find the difficulty level, discriminating power, validity, and reliability items.

The test items are constructs based on the English Curriculum for Junior High School. The researcher defines the test into two steps. They are:

1. Scoring the students speaking test, and then analyzing the tests
2. Counting the difficulty level and power of the tests.

1. The Analysis of the Test Items

One of the important steps in the research was data analysis. It is used to analyze the data about the student's scores of the speaking test given. That method is aimed at calculation the percentage on improving students' speaking ability using Speech Recognition Application

To know whether the items are good or bad, the research analyzes difficult level and discriminating power of each item of the test. The test items will be analyzed in terms of: Difficulty Level and Discriminating Power.

2. Validity of the Test

A test is called valid if it can measure what should be measured validity is related to level of the instrument. Validity is a very important aspect of a good test. While Purwanto (1984:136) states that, a valid test is one that in fact measures what it claimed to be measured.

Arikunto (2006:168) said that validity is a measurement that indicates the validity level of the instrument. The test is valid if it can measure what should be measured. The validity of this research is determined by using content validity.

In this research, the content validity is used because it contains a proper sample of things that are measured. In this case, the test item is made by considering the material stated in the compulsory book used by the teacher, and it has consulted by the teacher before the research is conducted. The test given to the respondents is constructed based on the English curriculum also.

Data Collection Method

In this research, the researcher uses achievement test in order to know how the Speech Recognition Apps giving a significant effect on student speaking ability.

In this research, the researcher uses a subjective test because this is type of test appropriate to measure speaking ability. The test consists of conversation between the student with the teacher and the student with another student with the teacher as assessor. The time to do the test is 5 minutes for each student. In this research, the researcher used the same as pre-test and post-test of control group and experimental group.

There are three steps of activities that are in this research are:

1. The researcher gave a pre-test before joining the teaching learning process in order to know how far the student mastered in speaking ability.
2. The researcher explained the meaning and gives an example on using speech recognition apps on conversation text and practical example.
3. Then, the researcher gave a post-test to know the effect of Speech recognition apps on students' speaking ability.

Data Analysis

The data collected includes the result of the test, observation, documentation, and field note. The technique of analyzing data on this study was adapted from Miles and Huberman (1984). He confirms that data analysis consists of three activities as follows:

1. Data Reduction

Data reduction means selecting, focusing, and simplifying the data obtained. The purpose of this step is to get clear information and therefore the researcher can make proper conclusion. The data obtained from the test, observation, documentation, and field note will be selected and the data which is not important will be reduced.

2. Data Display

Data display is the element or level in Miles and Huberman's (1994) model of qualitative data analysis. The data which has been selected and reduced will be displayed separately based on the instrument used in collecting the data. The data displayed includes the data from the test, observation, documentation, and field note.

3. Data Verification

This activity is the third element of qualitative analysis. Conclusion drawing involves stepping back to consider what the analyzed data mean and to assess their implications for the questions at hand.

The researcher will revisit the data displayed to make sure that the data has been fixed.

FINDINGS

At the first cycle, the research found out whether there is an important difference of student's speaking ability. The research was conducted at eighth grade students of Mts Miftahul Ulum Suco Lor. The subject of this research consists of 15 students. The speaking test in cycle 1 was conducted to know how far the students improve in writing ability after implementing the action using jigsaw group. The test was administrated in the last

meeting. The minimum scores the students reached based on the target score requirement is 68. The data can be seen in table 1.

Table 1. Students' speaking score in Cycle I and II

No.	Code	Pre-test	Total score Cycle I	Total Score Cycle II
1	S-1	52	56	76
2	S-2	46	51	73
3	S-3	48	54	72
4	S-4	51	60	72
5	S-5	70	83	90
6	S-6	41	49	56
7	S-7	52	57	69
8	S-8	70	80	84
9	S-9	50	54	70
10	S-10	75	75	82
11	S-11	56	65	77
12	S-12	51	53	72
13	S-13	58	70	80
14	S-14	43	48	56
15	S-15	57	69	76
Total		800	924	1105
Mean		54,6	61,6	73,6

There are 5 students whose score were higher than 68 and there were 10 students whose score were lower than 68. The minimum completion score of the eighth grade of Junior High School in this school is 68. In this case caused of the students not understand with the teacher applies in teaching method using Speech Recognition and Mean the student in the cycle I is (40.7 %)

There are increasing in a conversation group each student. Second meeting there were 12 students actively participated and 3 students were passively participated in teaching learning activity. And third meeting there were actively 14 students actively participated and just 1 student were passively participated in teaching learning activity. They are more active participants in each group jigsaw. It can be said that the observing in cycle 2 success because more than 75% students active in class.

Based on data analyses, the students' activities in learning process of understanding the material and students active to speak, giving question and opinion and attractive in the class. Speech recognition application helps students to explore their last experience.

will be remind in learning because it is very interesting and encourage the the students to speak English more frequently in daily activities. During the process of learning, the teacher has implemented the speech recognition application in teaching speaking with appropriately.

DISCUSSION

At the first cycle, the research found out whether there is an important difference of student's speaking ability. The meeting of cycle I was held on 14th October 2013, and then on 4th November 2013 was held the meeting of cycle 2. The research was conducted at eighth grade students of Mts Miftahul Ulum Suco Lor. The subject of this research consists of 15 students.

The researcher observed the situation of the classroom before conducting the study. The teacher explained that the students of eighth grade still poor on ability in speaking English language, because the motivation of students to learn English was poor. After observing the class situation, the researcher prepared the instrument that would be used in the teaching learning process. The researcher prepared the material, the example of A Model spoken English (conversation text-based theme) and arranged the lesson plan. This classroom action research was conducted into two cycles. Each cycle consists of four steps; they were planning, acting, observing, and reflecting.

Based on the observation it can be seen from the observation as presented in, which note that in first meeting in cycle 1 is 6 students actively participated and 9 students passively participated in teaching learning activity. The second meeting is 8 students actively participated and 7 students are passively participated in teaching learning activity and third meeting is 11 students actively participated and 4 students are passively participated in teaching learning activity. The observing in cycle 1 can be said that it fails because less than 75% of the students were active in the teaching learning process.

Based on observation results the researcher concluded that there are several problems that researchers must revise in the next cycle. So, the researcher hopes that while teaching and learning process in the next cycle must be better than the action in cycle 1.

Based on the reflection result in the action cycle I, the researcher acquired the conclusion and recommendation. The researcher used them as the source to design the planning action for cycle 1. Like in cycle I the action plan in cycle II also using speech recognition application as the tool to improve the students' speaking ability. This classroom action research was done into two cycles. Each cycle consists of four steps; they are planning, implementing, observing, and reflecting.

In the second cycle the result of notes from first meeting up to third meeting those are:

1. The teacher should control the emotion between the teacher and the students during the teaching learning process.
2. The teacher must be patient to give an explanation to the student. Every student has their own ability to absorb the teachers' explanation.
3. The teacher should be more creative and briefly in front of the class to avoid a boring and passive response class situation.

From the notes above it can be concluded that the implementation in cycle 2 is better than in cycle 1. The most important thing that should be pointed out was in the teaching learning process, the teacher also had to choose suitable activity in class. The teacher can ask the students to choose their own activities without getting out of the teacher's lesson plan. Those activities should be able to motivate the students to improve speaking ability the student and must make the student more active and interesting in the class.

Having analyzed the data from the observation and the speaking test, the researcher and the English teacher did reflection. It was intended to know whether the actions given in cycle 2 showed that the objectives of the research had been achieved. From the data of the students' test result above, the average score of class eight was 39 students. There are 14 students (95%) whose score were higher than 68 and there is 1 student (5%) whose score was lower than 68.

The students of result observation in learning involved this research showed that using speech recognition application in teaching speaking given positive impact in increasing of students in learning achievement. It can be shown by students result in learning process increase from cycle 1 and cycle 2. The result of cycle 1 is 58,5% and cycle 2 is 95%. And the criteria minimum of this school is 68, so the minimum criteria will be achieved in cycle 2. So, this research is success. The score cycle I and Cycle 2.

Based on data analyses, the students' activities in learning process of understanding the material and students active to speak, giving question and opinion and attractive in the class. Speech recognition application is helping students to explore their last experience will be remind in learning because it is very interesting and encourage the students to speak English more frequently in daily activities. During the process of learning, the teacher has implemented the speech recognition application in teaching speaking with appropriately.

CONCLUSIONS

From the discussions mentioned in the previous chapter, the researcher draws some conclusions as the result of the study in the eighth grade of Mts Miftahul Ulum Suco Lor in academic year of 2013/2014 on the improving student's skill in speaking recount text. There were the conclusions of this study:

1. By using speech recognition application, teacher can stimulate the students to speak English fluently and frequently. Using speech recognition application gains student's interest and motivation to learn speaking English because the students experienced the new way in learning process than using traditional learning process.
2. The implementation of improving speaking skill by using speech recognition application giving positive impact in increasing student's achievement in learning English. It can be proved from the increase of students average score in the cycle 1 and cycle 2 . Based on the result of the research that had been done in two cycles (cycle I and cycle II), the conclusions that there is an improvement. The students' skill in speaking English improved after being taught by using speech recognition application. The implementation of speech recognition application as a learning aid to improve students' ability in speaking was very effective. It was supported by the significant result of students score in the, Cycle I (58,50%) and Cycle II (95%).

These are suggestions for teacher, students, and other researchers:

1. For the teacher

Teacher may consider the use of daily conversation in the teaching of speaking by using speech recognition application, because it can motivate students to speak English more frequently and share their experience with the other; Teacher should plan the

time well. They should be careful in allocating the duration in the explanation about speech recognition application, and the duration the students conversation time; Using speech recognition application as a learning tool is a good way for the students in improving their ability in speaking. It helps the teacher and gives many times to the students be active in conversation.

2. For the Students

Students should study more and respond in learning process; Students should be more interested in English study; Student should improve their ability in English.

3. For the researcher

Hopefully, there will be an improvement for the next study, the writer hopes other researchers can use it as a reference to conduct their research in the same field. It is possible that there is another more effective way to teach speaking ability.

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