

## STUDENT'S SPEAKING SKILL IN ENGLISH MATHEMATICS COURSES WITH THE SILENT WAY METHOD

**Rohmah Indahwati**

Program Studi Pendidikan Matematika, Universitas Madura  
Email: indah\_math@unira.ac.id

### **Abstract:**

The purpose of this study was to determine student responses to English Mathematics lectures using the silent way method and also to determine students' speaking skills when the method was applied. Aspects assessed from speaking skill include grammar, vocabulary, comprehension, fluency, and pronunciation. This study uses quantitative and qualitative descriptive methods which aim to see the responses and learning outcomes of students in the form of speaking skills using English mathematics with Integer and Fractions material. Based on the results of the research that has been carried out, it can be concluded that the responses and speaking skills of students in English mathematics lectures on the topic of integers and fractions at Madura University are generally good. The response given by students to lectures with this method is positive. Meanwhile, the speaking ability score which includes 5 aspects is also good, namely the students' grammar mastery of 35.9% who got a score of 3 in the very good category, vocabulary mastery of 47.2% in the very good category, and 41.5% of the comprehension mastery with very good category, fluency mastery of 20.7% in very good category, mastery of pronunciation indicator by 16.2% in very good category.

**Keywords:** Speaking Skill, English Mathematic, and Silent Way Method

### **Introduction**

The ability to communicate using English is an absolute must for every student. This is because English is an international language used all over the world. In addition, English is also used as a language in various fields of science, technology, economics, culture and others. So that every student must be equipped with the ability to speak English, including at the tertiary level, regardless of their major. Students who choose to major in mathematics education must also take English mathematics courses. Based on the facts that the researchers met as a lecturer in English mathematics courses, there are still many basic problems that need to be solved. One of them is the lack of interest of students in learning English, especially English mathematics.

In foreign language learning, the method has a very important position to achieve learning objectives. Mahmud Yunus even said that the method was more important than the material (Yunus, 1942). Learning method is a method or effort made by educators so that the teaching and learning process of students is achieved in

accordance with the objectives. This learning method is very important to do so that the teaching and learning process looks fun and does not make the students bored, and also the students can capture knowledge from the educators easily.

Then what kind of method is most effectively used in learning English mathematics? Silent Way is the name of a language teaching method invented by Caleb Gattegno. Silent Way is one of the teaching methods where students learn in silence, meaning that in the learning process students can be more focused and very optimal in understanding what is being learned in the teaching and learning process. In this method, the teacher has the opportunity to pay great attention to things that can distract students.

In using the Silent Way method, educators are more verbally silent but actively use movement, pictures and designs to provoke and form reactions. The teacher creates situations and environments that encourage students to "try it out" and facilitate the learning process. Educators seem only as observers. In other words, educators provide a very

minimal model and allow students to develop freely, independently and responsibly. The explanations, corrections and modeling are minimal, while students make the generalizations, conclusions and rules they need themselves. However, in the learning process, structural and lexical approaches are still used. Silent Way is the name of a language teaching method invented by Caleb Gattegno, a language teaching expert who applies the principles of cognitivism and philosophy in his teaching. The Silent Way has generally been used to teach English and French around the world and has proven to be effective (Ulya, 2010)

The Silent Way or the silent teacher method is a genius method among several smart methods that can be used in learning English. According to Junanah (2014) an educator is not enough just to rely on this method in classroom learning because students will gradually feel bored. Several other methods need to be used as a distraction so that the learning atmosphere in the classroom is more complete. The creativity of educators in using this method is practically needed to build students' self-confidence. For the record, teaching a language with the Silent Way method is like leading an investigator on a voyage. Like detectives, students guess every piece of the puzzle they find so that their confidence in mastering a new language is equal to or greater than that of the educator.

The Silent Way is a problem-solving activity using special cards and colored blocks which received a positive response from language experts. Communicative language teaching theorists then advocate the use of tasks that involve information gaps and information transfer. For example, learners do the same task, but each learner requires different information to complete the task (Tarigan, 1991).

William Glasser in his book *Choice Theory* (1999) said that the more students feel controlled, the more they will dislike it. Dislike, whether expressed and manifested in the form of frustration, rebellion, and anger as well as latent and manifested in the form of indifference, sabotage, and apathy will certainly interfere with learning. according to Hermawan (2011) the steps that can be taken by teachers in using this method are broadly:

1. In the preliminary stage, the teacher provides props in the form of; (a) a display board that reads the material (field chart). This board contains the spelling of all the syllables in the foreign language being studied. (b) sticks/wooden blocks. The sticks are usually ten in number with different colors which are later used as props in forming complete sentences.

2. The teacher presents one item of language that is understood. It is presented only once. Thus he forces the students to listen carefully. At the beginning, the teacher did not say anything, but only showed the symbols listed on the display board. Students pronounce the symbols designated by the teacher by reciting aloud, at first simultaneously. Then on the instructions of the teacher, one by one the students recited it. This step is the initial stage.

3. After students are able to pronounce the sounds in the foreign language being studied, the teacher presents a second display board containing the selected vocabulary, this vocabulary is taken from the sentences most often used in daily communication. This vocabulary is very useful for students in constructing a sentence independently, this step is also still in the early stages.

4. The teacher uses the colorful sticks that have been provided to provoke the students to speak the foreign language being studied. Pada saat ini dosen mengangkat tongkat dan berkata, misalnya: berapakah nilai ini ? Setelah itu dosen mengangkat tongkat lain yang berlainan warna dan meminta salah seorang mahasiswa untuk maju ke depan dan menunjukkan nilai lain. Setelah itu mahasiswa tersebut diminta untuk melakukan dan mengatakan hal yang sama kepada temannya yang lain, dan seterusnya. Dengan demikian mahasiswa akan terangsang untuk membuat kalimat lengkap secara lisan dengan kata-kata yang telah mereka kuasai sebelumnya. After that, the lecturer raised another stick of a different color and asked one of the students to come forward and show another score. After that the student is asked to do and say the same thing to his other friends, and so on. Thus, students will be stimulated to make complete sentences orally with words that they have mastered before.

5. In closing, the teacher can conduct a test of the success of students in mastering the vocabulary

that has been taught by giving orders that are not as verbal as possible. maybe testing can be given to all students.

Many previous studies have been carried out to improve students' English speaking skills, including using the Three Step Interview Learning Strategy (Hotmaria, 2021), Through the Demonstration Method (Darsiana, 2018), using the Spying Method (Rismayanti, 2013) and tricks to improve language speaking skills. English Students in Facing the Revolutionary Era 4.0. (Sari, 2019). There are also several studies and studies on the use of the silent way method, including in Arabic Language Learning (Junanah, 2014) and in Japanese Language Learning (Ulya, 2010). However, no one has tried to apply the silent way method in math English courses to improve math English speaking skills, so researchers are interested in applying the silent way method in math English courses.

### **Research Method**

This study uses quantitative and qualitative descriptive methods which aim to see the responses and learning outcomes of students in the form of speaking skills using English mathematics with Integer and Fractions material. This research applies the silent way method. The variables of this research are the responses and learning outcomes of students in the English mathematics course on integers and fractions after the silent way method is applied. Student responses are student responses to the stimulus given by the lecturer. The stimulus is in the form of questions arranged based on the silent way theory. Learning outcomes are defined as the final results obtained by students after the silent way method is applied, in the form of the ability to speak using English with vocabulary in the field of mathematics.

This research was conducted at the University of Madura, majoring in mathematics education class A class 2021/2022 semester 1, totaling 41 students, in the English mathematics course on the topic of integers and fractions. The data collection techniques used were tests and interviews. Meanwhile, to see student responses in English mathematics lectures on whole numbers and fractions using a questionnaire sheet. Students' speaking ability is seen from the score consisting of mastery of grammar, vocabulary, comprehension,

fluency, and pronunciation which are assessed during the lecture.

The silent way method used in this English course follows the following technique:

1. The lecturer provides a display board which in this case shows an integer or fractional value, then provides new vocabulary that shows that value and the students pronounce the vocabulary together.
2. Furthermore, the lecturer did not say anything, but only showed the symbols listed on the display board. Students pronounce the designated symbol by reciting it aloud, at first simultaneously. Then one by one recite them.
3. After being able to pronounce the vocabulary in the topic of whole numbers and fractions, the lecturer displays a second display board containing the selected vocabulary, this vocabulary is taken from the sentences most often used in daily communication.
4. The lecturer uses the colorful sticks that have been provided to provoke students to speak using vocabulary on the topic of whole numbers and fractions. At this time the lecturer raised the stick and said, for example: what is this value? After that, the lecturer raised another stick of a different color and asked one of the students to come forward and show another score. After that the student is asked to do and say the same thing to his other friends, and so on. Thus, students will be stimulated to make complete sentences orally with words that they have mastered before. Lecturers gradually say as little as possible, while students do the opposite, by trying to avoid using their language, but still under the non-verbal supervision of the lecturer. If it is possible to develop vocabulary, the lecturer can use other appropriate teaching aids, such as natural objects, pictures, or worksheets with certain themes as needed.
5. In closing, the researcher conducted a test of the success of students in mastering the vocabulary that had been taught by giving orders that were not as verbal as possible. In this test, pay attention to the time available, because with the limited time available, it is impossible for the test to be given to all students. So that in each meeting the lecturer directs that every student has the same opportunity to speak.

### **Result and Discussion**

**Result**

Data from student responses to English mathematics lectures using the silent way method are as follows:

Table 1. Student's Response Result

No	Question	Criteria	
		Yes	No
1	Do you enjoy studying with using the silent way method?	75%	25%
2	Are you more flexible in express opinion with using the silent way method instead of previous learning?	79%	21%
3	Do you find it easier to use new vocabulary in this method?	88%	12%
4	After taking lessons using this method, whether you are more confident in speaking use vocabulary in math ?	93%	7%
5	Are you interested in using this method for the next lecture?	73%	27%

From the table above, it can be seen that the student's response was positive for every aspect that was asked on the questionnaire sheet. Even for aspect number 4 which asked about the effect of the silent way method on confidence in speaking using English mathematics, 93% of students answered "yes". As for the first question, namely whether students are happy during learning with the silent way method, there are 25% who answered "no". It could be that some of these students are because they are still not familiar with this method and they are still not confident and afraid to express opinions or speak in English math vocabulary. For the third question, regarding the ease of using the new vocabulary, there are 88% who answered "yes" and it means that only 12% still find it difficult to use the new vocabulary in question, maybe this 12% is also in the 25% which is illustrated in the question first. For the second and fifth questions the responses were not too much different, namely 79% who answered "yes" to the second question and there were 73% who answered "yes" to the last question.

For student learning outcomes in the form of speaking skills which include mastery of grammar, vocabulary, comprehension, fluency, and

pronunciation which are assessed during the lecture, it can be seen in the table below:

Table 2. Average Score of English Speaking Skill

Speaking Skill	Average Score of English Speaking Skill			
	0	1	2	3
Grammar	6,2	33,2	24,7	35,9
Vocabulary	2,3	19,9	30,6	47,2
Comprehension	3,4	40,4	14,7	41,5
Fluency	8,4	28,3	42,6	20,7
Pronunciation	7,2	38,7	37,9	16,2

Based on the table above, it can be seen that 35.9% of students' grammar mastery got a score of 3 in the very good category, 47.2% of vocabulary mastery in the very good category, 41.5% mastery of comprehension in the very good category, fluency mastery by 20.7% in the very good category, mastery of the pronunciation indicator by 16.2% in the very good category. Mastery of English language skills at most grammars who get very good scores, this is because students are very enthusiastic in the application of new vocabulary in this silent way method. While the lowest score that gets the very good category is the ability to pronunciation, this is because students still have not mastered the pronunciation of every English vocabulary in speaking.

Interview data were collected to support the data on the results of students' speaking skills. There are 3 students as interview subjects, namely 1 student who is considered active during lectures, 1 student who is considered quite active during lectures, and 1 student who is considered less active during lectures. After the interview data were analyzed, it was concluded that students who were active during lectures mastered all aspects of speaking skills and obtained maximum scores in each aspect. Although there are some words whose pronunciation is not quite right, for the grammar and vocabulary the students are very good. This student was also very enthusiastic and gave a positive response to lectures using the silent way method. The student also feels very motivated to always respond to questions in class discussions because the class is very supportive so that every

student can speak using math vocabulary in English.

The response given by the second subject in the interview session was actually also positive, but the subject felt a little embarrassed in pronouncing the vocabulary because he was unsure about how to pronounce it. The student is still not confident but has been quite active during lectures because if asked for an opinion, the student responds. However, the pronunciation of this student is in the sufficient category.

For the third subject, this student is in the poor category in every aspect of speaking ability. These students did not seem enthusiastic about attending lectures. The reason given by the subject, because the subject does not know how to speak in English, for him English is very difficult, so he is not interested in attending lectures.

### **Conclusion and Suggestion**

#### **Conclusion**

Based on the results of the research that has been carried out, it can be concluded that the responses and speaking skills of students in English mathematics lectures on the topic of integers and fractions at Madura University are generally good. The response given by students to lectures with this method is positive. Meanwhile, the speaking ability score which includes 5 aspects is also good, namely the students' grammar mastery of 35.9% who got a score of 3 in the very good category, vocabulary mastery of 47.2% in the very good category, and 41.5% of the comprehension mastery with very good category, fluency mastery of 20.7% in very good category, mastery of pronunciation indicator by 16.2% in very good category.

#### **Suggestion**

Learning English must use varied and interesting methods. One method that can be used is the silent way method. Students are expected to be more active in class activities and dare to practice speaking in English. And the parties are expected to provide adequate facilities to practice English

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