Improving English Speaking Ability Using Quantum Teaching Approach at Student Grade XI MAK of Ruhul Islam Anak Bangsa Islamic Boarding School

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ABSTRACT

This study aims to improve students' speaking abilities at the Ruhul Islam Anak Bangsa Islamic Boarding School in Aceh Besar through the Quantum Teaching approach. The research design was carried out in the form of classroom action research for 38 students of grade XI MAK. In this research, the teacher became a collaborator who carried out learning designed by researchers to be implemented in the classroom, and the researcher was an observer and fully responsible for this action research. The data in this research was collected through observation techniques on the students involved in learning. The obtained data were then analyzed using the average formula to measure individual student mastery. Meanwhile, data to see mastery in a classical manner was processed using the percentage formula. The research results show that the Quantum Teaching approach improves students' speaking skills. It can be seen from the average speaking skill of grade IX MAK students in Ruhul Islam Anak Bangsa Islamic Boarding School increased; in cycle I to 2.78, cycle II to 2.91, and cycle III to 3.45. Furthermore, the researcher or other teachers are expected to continue this research to obtain more significant findings on improving students' speaking skills.

1. INTRODUCTION

The proficiency that English language learners should master (Zhang, 2013). However, many English language learners struggle to acquire good speaking skills. It is caused by several factors, such as lack of motivation, insufficient study time, or inadequate skills in developing speaking abilities. English language learning in Indonesia mostly still uses traditional methods that tend to be passive (Darsih, 2018). This method tends not to be able to stimulate students' motivation and interest in learning, so students' speaking abilities are often hindered. Therefore, an effective approach is needed to improve the speaking abilities of English language learners.

One approach that can be used is the quantum teaching approach. This approach integrates concepts from quantum physics into the learning process (Nahar, 2022). The Quantum teaching approach was introduced by Fred Alan Wolf in the 1980s as a form of application of concepts in quantum physics to the learning process (Rumapea et al., 2017). The quantum teaching approach can help improve the speaking abilities of English language learners by emphasizing a more active and creative learning concept (Oxford &

Shearin, 1994). Learners are encouraged to participate more in learning to improve their speaking abilities (Oradee, 2012).

The quantum teaching approach emphasizes a learning process that emphasizes student activity, involvement, and creativity. Concepts in quantum physics, such as holism, probability, and new paradigms, are used in the learning process to help students understand concepts and acquire better speaking abilities (Ramadhani & Ayriza, 2019). Several previous studies have shown that the quantum teaching approach effectively improves students' speaking abilities. A survey by Solehah (2017) showed that the quantum teaching approach could improve the speaking abilities of junior high school students in Bandung. However, the use of the quantum teaching approach in improving English-speaking abilities in Indonesia is still limited (Yuniar et al., 2019). Therefore, more in-depth research is needed to determine the effectiveness of this approach in improving the speaking abilities of English language learners in Indonesia.

Research at Ma'had Ruhul Islam Anak Bangsa Aceh Besar was conducted to test the quantum teaching approach's effectiveness in improving students' speaking abilities in English language lessons. This case study is expected to provide empirical evidence of the efficacy of the quantum teaching approach in enhancing students' speaking abilities. The results of this case study are also expected to provide recommendations for other educational institutions that want to implement the quantum teaching approach in English language learning.

2. LITERATURE REVIEW
2.1 Basic Concepts of Speaking Skills

Developing speaking skills in English language learning has been a widely discussed topic in research and academic writing (Kumar, 2021). Some basic concepts of speaking skills in English include:

1. Factors influencing speaking skills: Several factors influencing speaking skills include grammar and vocabulary proficiency, confidence, communication skills, and motivation (Hanifa, 2018). Research shows that students with good grammar and vocabulary skills also tend to have better speaking skills (Nazara, 2011).
2. Techniques for teaching speaking skills: Several teaching techniques are used to improve students' speaking skills, including role play, dialogue, presentation making, simulation, and discussion (Hussain, 2017). These techniques are designed to help students develop their speaking, listening, and understanding skills in English.
3. Models for teaching speaking skills: Several teaching models that can be used to improve speaking skills include Cooperative Learning, Task-based Learning, and Communicative Language Teaching (Gudu, 2015). These models are designed to strengthen students' speaking skills through exercises that are relevant to their daily lives.
4. Evaluation of speaking skills: speaking skills can be reviewed through formal and informal assessments (Ounis, 2017). Formal assessment includes speaking tests that are usually conducted at the end of a semester or after completing certain materials (Huang et al., 2021).

Informal assessment can be done through teachers' direct observation or discussions with students (Ruiz-Primo & Furtak, 2007).

The speaking aspect competency in English lessons for grade XI Senior High School in the 2013 Curriculum consists of three main aspects, namely (Mulyasa, 2021):

1. Understanding the meaning of functional oral texts and simple monologues related to the immediate environment. This competency refers to students' ability to understand the meaning of functional oral texts and simple monologues related to their environment, such as information about schedules, announcements, or brief instructions. Students are expected to understand the words and phrases commonly used in such situations and respond correctly.

2. Expressing the meaning in functional oral texts and simple monologues related to the immediate environment. This competency refers to students' ability to express the meaning in functional oral texts and simple monologues related to their environment, such as providing information about schedules, announcements, or brief instructions. Students are expected to use the appropriate words and phrases and pronounce them with proper intonation.

3. Expressing the meaning in functional oral texts and monologues related to general topics and/or class by paying attention to a social function, text structure, and correct language elements. This competency refers to students' ability to express the meaning in functional oral texts and monologues related to general topics and/or class by paying attention to a social function, text structure, and correct language elements. Students are expected to use English appropriately and fluently, organize ideas in the text, and correctly use language elements such as vocabulary and grammar.

In order to achieve these competencies, students are expected to use techniques in speaking English, such as using appropriate vocabulary, paying attention to intonation and pronunciation, and using English in appropriate situations. In addition, students are also expected to develop communication and social skills in English through speaking practices in groups and presentations in front of the class.

2.2. Quantum Teaching Approach

2.2.1 Definition

Quantum Teaching is a vibrant learning transformation with all its nuances (Arum et al., 2019). Quantum Teaching includes all connections, interactions, and differences that maximize learning moments (Lastasa & Habaridota, 2020). Quantum Teaching focuses on dynamic relationships in the classroom environment, establishing the foundation and framework for learning (Zeybek, 2017). Quantum Teaching combines the best of the best into a multisensory, multi-intelligence, brain-compatible package that ultimately enhances a teacher's ability to stimulate children to achieve (Sulfah et al., 2022). Quantum Teaching is based on the concept of "*Bring Their World to Our World, and Bring Our World to Their World*". It is the main principle, the basic reason behind all Quantum Teaching strategies, models, and beliefs (Deporter, 2010).

2.2.2 Principles of Quantum Teaching

Principles of Quantum Teaching that can be applied in speaking learning:

1. Positive mindset reinforcement: Teachers should help students develop a positive mindset by focusing on success, building confidence, and overcoming fear and anxiety that may arise when speaking in public (Brooks & Goldstein, 2008).
2. Building a good relationship between teachers and students: A good relationship between teachers and students is crucial in learning. Teachers should listen and understand students' needs and provide positive and constructive feedback (Alhija, 2017).
3. Effective and enjoyable learning: Effective and enjoyable learning can help students better understand the material being learned (Wood, 2004).
4. Using innovative and varied learning techniques: Teachers should use innovative and varied learning techniques to help students learn effectively and enjoyably (Hug et al., 2005).
5. Applying mind mapping techniques: Mind mapping techniques can help students understand the material better and organize their thoughts (Davies, 2011).
6. Using gamification in learning can help increase student motivation and accelerate learning (Bai et al., 2020).
7. Developing critical thinking skills: Critical thinking skills are essential in learning. Teachers should help students develop critical thinking skills by asking challenging questions and encouraging them to consider different perspectives (Miri et al., 2007).
8. Emphasizing the process rather than the outcome: Teachers should emphasize the learning process rather than the final outcome to help students understand that learning is an ongoing process (Pressley et al., 1992).
9. Providing a safe and comfortable learning environment: Teachers should create a safe and comfortable learning environment to help students feel comfortable and confident in learning (Prashanti & Ramnarayan, 2020).
10. Encouraging active student engagement in learning: Teachers should promote active student engagement in education by asking them to participate in class discussions and presentations (Shreeve, 2008).

3. RESEARCH METHODOLOGY

This classroom action research was conducted at Ma'had Ruhul Islam Anak Bangsa Aceh Besar. The research subjects were 38 grade XI MAK students in the second 2020-2021 academic year semester. This classroom action research was implemented in three cycles over two weeks, namely in the first and second weeks of March 2021. This classroom action research used a collaborative approach where a teacher acted as a collaborator who implemented the learning activities designed by the researcher in the classroom, while the researcher acted as an observer and the overall responsibility for this action research. Data collection was conducted through direct observation using prepared instruments. The data processing techniques used in this study consist of: 1) assessing the average speaking ability of students in four tested aspects using the following formula:

$$X = \frac{\sum X}{\sum N}$$

X = Average Score
X = Total Score
N = Number Of Students

Meanwhile, 2) to see the classical mastery percentage of the 38 students who were used as research subjects in this case, the following formula is used:

$$P = \frac{\sum Students\ with\ Passing\ Grade}{\sum Student} \times 100\%$$

The success in this research consists of personal success and classical success. Individual success in the four aspects tested in speaking ability is a minimum average score of 3, while classical success is calculated as an average of 90% of all 38 11th-grade students.

4. FINDINGS

The classroom action research was conducted in three cycles on students' speaking ability in grade XI MAK at MA Ma'had Ruhul Islam Anak Bangsa. The aspects assessed in determining the completeness of students' speaking ability consist of four aspects, namely; 1) Fluency, 2) Vocabulary richness, 3) Expressing ideas, 4) Ability to tell a story sequentially and clearly. The stages of learning in the implementation of this classroom action research consist of; the planning stage, the implementation stage, the observation stage, and the reflection stage (Macintyre, 2012). The achievement data of cycle I in students' speaking ability in the "Giving Helps" material can be seen in the following table:

Table 1. The results of speaking ability in cycle I

No	Aspect of Assessment	Observation Results					Average	%
		E	G	E	P	Total		
1.	Fluency	5	21	9	-	101	2,88	74
2.	Vocabularies	7	15	13	-	99	2,82	62
3.	Expressing Idea	5	11	19	-	91	2,88	45
4.	Ability to tell a story sequentially and clearly.	5	10	20	-	90	2,57	42

Based on the data above, it can be seen that in this first cycle, there are four assessment aspects, namely: fluency, vocabulary richness, expressing ideas, and ability to tell a story sequentially and clearly, which have not yet met the set target, which is a minimum average of 90% of students. In other words, the aspects of fluency, vocabulary richness, expressing ideas, and ability to tell a story sequentially and clearly have an average score below 3. The average language proficiency of students is also still below 3, and the classical learning completeness of students is only 64.6%, as shown in the following table:

Table 2. The student's achievement in cycle I

No	Description	Cycle I Result
1.	The average score of students' speaking ability	2,787
2.	The percentage of classical learning completeness	64,6 %

Since the classical completeness has not reached the minimum average limit that has been set, cycle II action is carried out. The data relating to the implementation of cycle II action can be seen in the following table:

Table 3. The results of speaking ability in cycle II

No	Aspect of Assessment	Observation Result					Average	%
		E	G	E	P	Total		
1.	Fluency	6	25	6	-	111	3	83
2.	Vocabularies	6	23	8	-	109	2,94	78
3.	Expressing Idea	6	20	11	-	111	2,86	70
4.	Ability to tell a story sequentially and clearly.	7	18	12	-	106	2,86	67

Based on the data from the second cycle of the "Surviving from the Accident" theme, it can be seen that there are four assessment aspects in this cycle, namely: fluent speaking, vocabulary richness, expressing ideas, and the ability to tell stories clearly and sequentially that have not met the set target, which is a minimum average of 90% of students. In other words, the aspects of fluent speaking, vocabulary richness, expressing ideas, and the ability to tell stories in a clear and sequential manner have an average below 3. The average language proficiency of students is also still below three, and the classical learning completeness of students is only 74.5%, as shown in the following table:

Table 4. The student's achievement in cycle II

No	Description	Cycle II Result
1.	The average score of students' speaking ability	2,915
2.	The percentage of classical learning completeness	74,5

Furthermore, based on the reflection conducted on the implementation of the second cycle that did not meet the classical completeness criteria of 90% of all students who participated in the learning, a third cycle action was carried out in this case, referring to the stages of planning, implementation, observation, and reflection. The results of the implementation of the third cycle action can be seen in the following table:

Table 5. The results of speaking ability in cycle III

No	Aspect of Assessment	Observation Result					Average	%
		E	G	E	P	Total		
1.	Fluency	18	19	1	-	131	3,44	97
2.	Vocabularies	18	1	3	-	126	3,31	92
3.	Expressing Idea	16	20	2	-	128	3,36	94
4.	Ability to tell a story sequentially and clearly.	11	24	3	-	122	3,21	92

The results of the implementation of the third cycle action show a significant improvement in students' speaking ability. All four aspects of speaking skills that were assessed have met the set target, which is a minimum average of 90% of students.

In other words, the aspects that were assessed have a minimum value of 3. The classical learning completeness of students has reached 95%, with an average language proficiency of 3,455, as seen in the following table:

Table 6. The student's achievement in cycle III

No	Description	Cycle III Result
1.	The average score of students' speaking ability	3, 455
2.	The percentage of classical learning completeness	93,7

The success in the third cycle is because the teacher and students are starting to get used to the Quantum Teaching approach. The approach taken by the teacher is also appropriate for the students so that they are confident in expressing their ideas and storytelling skills in front of the class.

5. DISCUSSION
5.1 The Aspect of Fluent Speaking

The speaking fluency ability of students in grade XI of MAK Ruhul Islam Anak Bangsa before the implementation of the action was relatively low. Only about 35% of the total students, or out of 38 students, only about 13 students were able to speak fluently or categorized as good. After the implementation of the Quantum Teaching approach, there was an improvement seen in Cycle I, II, and III.

In cycle I, the result reached 74% or 26 students who participated in the learning and were able to speak fluently with clear language. After improvements were made in Cycle II, the student's ability to speak fluently with clear language improved. Therefore, out of 37 students, 31 students were considered able to speak fluently. It was further strengthened by the success of Cycle III, where students were increasingly able to speak fluently. In this cycle, the number of students who met the criteria to be included in the excellent category was 37 out of 38 students, with an average score of 3.71. This success was due to students and teachers becoming more familiar with the method used.
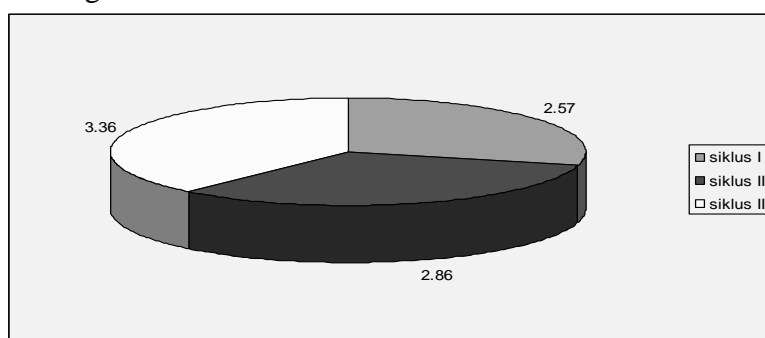

Chart 1. The aspect of fluent speaking

5.2 The Aspect of Vocabulary Richness

One aspect of language intelligence is vocabulary richness, which can be seen from the variety of vocabulary used in storytelling activities. The vocabulary richness of students in grade XI of MAK Ruhul Islam Anak Bangsa at the initial condition was only 25%. It means that out of 38 students, only 9 students were able to use a variety of vocabulary. After the implementation of the Quantum Teaching approach, students' ability

in the vocabulary richness aspect has increased, as seen in Graph 4.2 below. In Cycle I, there were 22 out of 35 students, or 62% who were able to use vocabulary in a varied way, and in Cycle II, the score reached 78. It means that 29 out of 37 students who participated in the learning were able to vary their vocabulary, and in Cycle II, it was obtained that 92% of students were able to use vocabulary with variations.
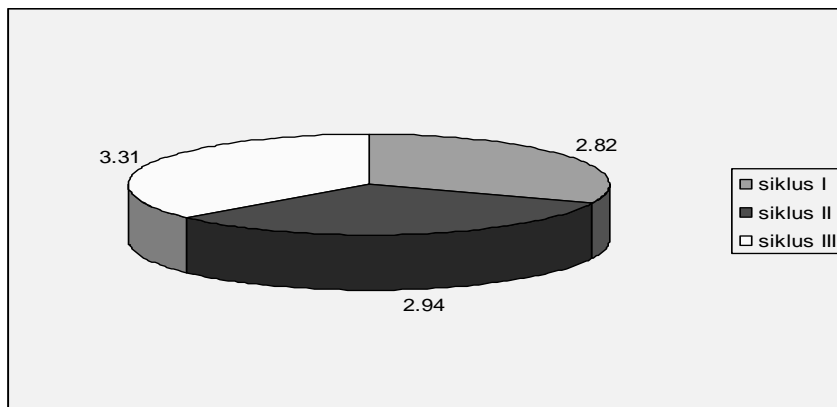

Chart 2. The aspect of vocabulary richness

5. 3 The Aspect of Expressing Ideas Ability

Language intelligence includes a person's ability to use language and words, both in written and spoken forms, in various different ways to express their ideas. The students in grade XI of MAK Ruhul Islam Anak Bangsa Aceh Besar did not fully possess this ability. It can be seen from the collected data, which shows that only around 8 out of 38 students, or 20% of students, can express their ideas. However, the following graph changed after implementing the Quantum Teaching approach in language development in grade XI of MAK Ruhul Islam Anak Bangsa Aceh Besar.
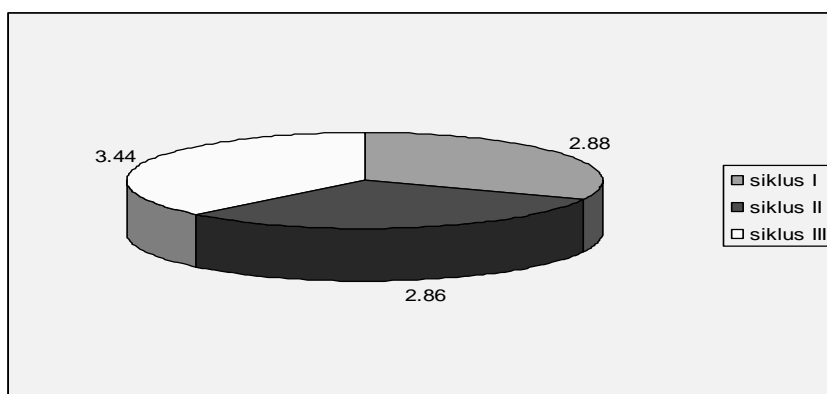

Chart 3. The aspect of expressing ideas ability

At the beginning of the implementation of this method, there were still obstacles in the learning process. However, as time went on and both students and teachers became more familiar with the approach, the ability to express ideas also increased. Based on the data obtained, it was found that in Cycle I, only 45% of students, or 16 students out of 35 who attended, were considered able to express their ideas. Furthermore, in Cycle II, it was found that 70% of students, or 26 students out of 37 who attended, were able to express their ideas, and in Cycle III, as many as 95% of students, or 36 students out of 38 who attended were considered able to express their ideas or thoughts.

5. 4 The Aspect of Storytelling Ability

Children who have high language intelligence are generally characterized by their interest in activities related to reading, writing, storytelling, and others. It indirectly emphasizes that the ability to manipulate words and storytelling can be a clue that the child has above-average language intelligence. This advantage can be developed if teachers and parents are able to guide them in the right direction.
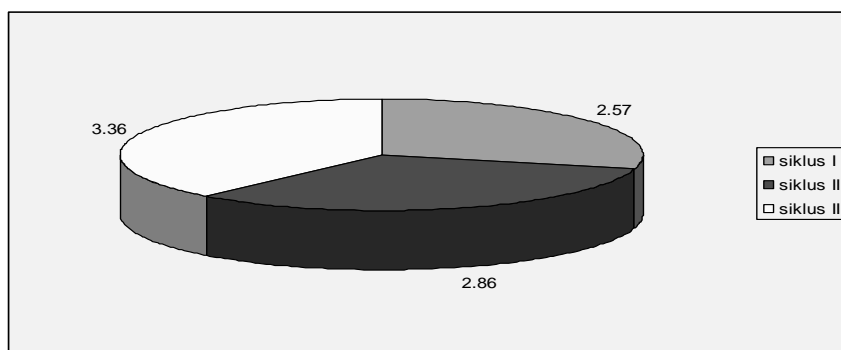

Chart 4. The aspect of storytelling ability

Before the implementation of the Quantum Teaching approach, the storytelling ability of 11th-grade students at MAK Ruhul Islam Anak Bangsa Aceh Besar was only around 20% or only 8 students out of 38 who possessed such knowledge. After implementing the Quantum Teaching approach in language development for the 11th-grade class, it was found that in cycle I, 42% of the students, which is around 15 students out of 35 who attended the learning process, were able to narrate a picture story in sequence. Then in cycle II, there was an increase where 67% of the attending students, or 25 out of 37, could tell a story. After the teacher improved the approach to motivating the students, it was found that in cycle III, 92% of the students were categorized as good or very good in their ability to narrate a story sequentially and clearly.

Based on the five aspects of language ability, it can be said that implementing the Quantum Teaching approach in storytelling learning can overcome the problem of students' low ability in storytelling. This method allows the student's language intelligence to be explored and enhanced. It is evidenced by the results of the cycle stages, which showed that the speaking ability of 11th-grade students at MAK Ruhul Islam Anak Bangsa experienced an average development, where the average speaking ability of students in cycle I was 2.78, cycle II was 2.91, and cycle III was 3.45.
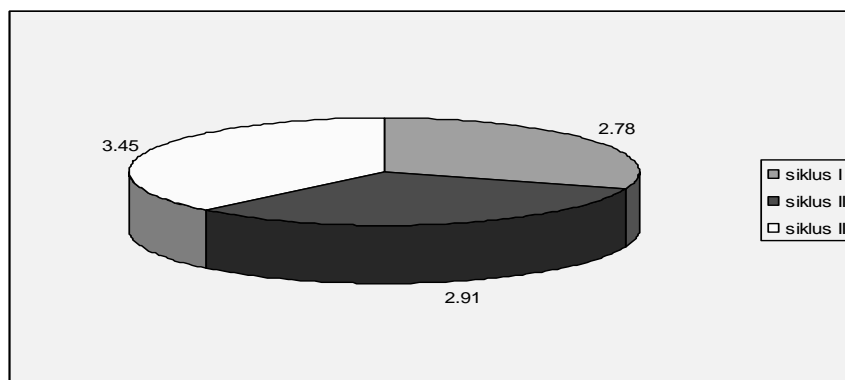

Chart 5. The students' speaking ability

6. CONCLUSION

Based on the results of the classroom action research that has been carried out through several cycles, from cycle I, II, and III, and based on all discussions and analyses that have been conducted, it can be concluded that the use of the Quantum Teaching approach is very appropriate for improving students' speaking intelligence through storytelling activities. Specifically, this study can be concluded as follows:

1. The application of the Quantum Teaching approach can improve students' language abilities. It is indicated by the analysis results, which showed that the average language ability of grade XI MAK students in Ruhul Islam Anak Bangsa Aceh Besar in cycle I was 2.78, cycle II was 2.91; and cycle III was 3.45.

2. In addition, the application of the Quantum Teaching approach in grade XI MAK at Ruhul Islam Anak Bangsa Islamic Boarding School has also been able to foster students' desire to practice their speaking skills in class, which was previously relatively lacking in oral language, so on the other hand, their speaking ability has also increased. Furthermore, the Quantum Teaching approach can be an alternative method for English language teachers in the teaching-learning process of the subject.

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