

CHAPTER I

INTRODUCTION

1.1. Background

This research stems from a profound need to enhance the speaking skills of high school students, considering the crucial role of these skills in fostering interpersonal communication and preparing students for academic and professional challenges. The study responds to the complexity of these challenges by proposing the implementation of a quantum learning model, a promising innovation in addressing the diversity of students' learning styles. This model incorporates principles of quantum mechanics into the educational context, creating a dynamic and adaptive learning environment. The specific focus of the research is a thorough investigation into the impact of the quantum learning model on improving the speaking skills of second-year students in high school. The study is expected to make a significant contribution to the development of innovative teaching methods, enriching our understanding of the effectiveness of the quantum learning model in enhancing students' overall communication abilities.

In fact, English learners from Indonesian still get many difficult to speak English viewed from the speaking indicators and those should be solved by the teachers. Students' speaking competence can be influenced by some factors, those are factors from students themselves and also factors from the way teacher give the materials to the students. The first factor which comes from the students is they get difficult in pronouncing the words fluently, using word order and grammar correctly. The other factors is the teaching method use by the teacher. The teaching method used by the teacher give big influences to the students' competence. Effective learning method will help students to enhance the fluency of speaking, pronounce some words correctly, choose the appropriate words according to the context, express the idea in a correct order, and produce grammatical correct order, and produce grammatical correct sentences.

Teachers should be able to find effective method to teach speaking that can solve the problem of students' speaking. One of those methods which would be

applied by the researcher is quantum learning method. Quantum learning is an Indication, strategy, method, and the whole process of learning that can sharpen the understanding and memory, as well as making learning as a process that is fun and rewarding. This method is developed by Bobbi De Porter in the early 1980'. In Quantum learning method, the students will learn in fun, enjoyable, and interesting activities. It can't students to comprehend the materials because they will get more positive effect on their learning spirit and motivation when the teachers gives interesting materials. One of the purposes of quantum learning method is to create an effective learning environment. The students not only learn from the materials given by the teacher, but also learn from the environment. So, it well be more meaningful activities for the students.

Based on the ideas above, the researcher would like to conduct research about "the effectiveness of quantum learning model to improve students speaking skill in second grade SMKN 1 Palopo."

1.2. Problem Statetment

The problem statement of the research: is the use of quantum learning model effective in improving students' speaking skills?

1.3. Objective of the Research

The objective is to find out the effectiveness of quantum learning model in improving students speaking skill at the XI grade of SMKN 1 Palopo.

1.4. Significance of the Research

Based on the objective the research above, the result of the research are expected to be useful information for:

1. For next researchers

This study provides an opportunity to delve deeper into the field of education and learning. With a more profound understanding of the quantum learning model's effectiveness, researchers can contribute to academic literature and strengthen their position within the scholarly community. The findings of this research can also serve as a foundation for publications and career development in the field of education.

2. For students

The research offers benefits for improving students' speaking skills. By applying the quantum learning model, students can develop better communication abilities that are crucial for their future. This approach also makes learning more engaging and boosting motivation for active participation. Thus, students gain improved speaking skills and a more positive learning experience.

3. For teachers

The research provides valuable insights for implementing the Quantum Learning Model in classrooms. Teachers can gain practical guidance to enhance teaching effectiveness. Understanding the model's impact helps in tailoring approaches to students' needs and enriching teaching strategies for achieving learning objectives.

1.5. Scope of the Research

This research focuses on XI grade students at SMKN 1 Palopo. This study focuses on the effective utilization of quantum learning to improve students' speaking skills, especially in describing places and mastering various aspects of speaking such as fluency, pronunciation, and comprehension.

1.6. Operational Definition

1. Speaking

Speaking skills involve assessing students' verbal communication abilities, including pronunciation, vocabulary usage, fluency, and grammar. This utilizes a rating scale to measure students' capability to convey information or opinions clearly and effectively.

2. Quantum Learning

The quantum learning model entails applying the principles of quantum mechanics in an educational context to create a dynamic and adaptive learning environment. This involves employing interactive teaching methods, diverse instructional approaches, and adjusting learning materials based on student responses. The research aims to evaluate the impact of this model on students'

speaking skills while comprehensively understanding how quantum principles can be applied to enhance the learning process.

CHAPTER II

REVIEW OF RELATED LITERATUR

2.1 Some Pertinent Ideas

1. Speaking

a. Definition Speaking

Speaking is one of the most important skills in learning English. Let us find out the definition of speaking first! In Webster's New World Dictionary, speaking is to say words orally, to communicate by talking, to make a request, and to make a speech. Speaking ability has an important role in acquiring language in EFL. An important corollary of the comprehension hypothesis is that we do not acquire language when we produce it, but only when we understand it. The ability to speak is the result of language acquisition, not the cause (see also the remarks on writing below). The ability to speak foreign languages is a very important added value because, by mastering a foreign language, people can interact with each other. In learning a foreign language, students are required to be skilled at listening, speaking, reading, and writing. Among the four skills, speaking skills have a very important social role in human life because a person's career success is also determined by his ability to speak. Tarigan (2015).

Speaking is the ability of people to speak English that is used to deliver information with fluent and good pronunciation Kuning (2020:78). Speaking is verbal communication. which is basic skill that very needed by students. Therefore, with mastering speaking skill students will gradually build their confidence to speak and communicate. using English as a foreign language with other. States that "speaking is used to express meanings so that other people can make sense of them (Suryani in Sunarya, (2018:281). States that to get involved in a spoken communication, someone should be ready to speak up without feeling ashamed, fear, lack confidence, and so forth Susanti (2019:58).

Based on explanation of the experts above, it can be concluded that if the students able to speak English well, then they can use their communication skill to achieve their goal, that is conveying their message. Speaking is the process of

making and sharing meaning using verbal and non-verbal symbols in different contexts. Leong and Ahmadi (2017:35).

Referring to those explanations above, it can be concluded that speaking is the main key in communication. It happens between two or more people which need and results sentences. It deals with the process of thinking, arranging the ideas, and delivering the messages that make other people can get the information. Furthermore, it is one of four basic language skills that is really important and affect the communication which is taught in the school to prepare the learner to be able to communicate with global people.

2. The Component in Speaking

As we know, practice to speak English as often as possible will be able to help the students to speak accurately and fluently. So, there are some important components that can be followed. The component is the aspects of influencing how well people speak English. Here is the component of speaking skill according to Brown (2004:27) namely:

a. Pronunciation

Pronunciation is the way of students to produce clearer language when they speak. It deals with the phonological process that refers to the components of grammar made up of the elements and principles that determine how sound and pattern in a language. Second language learners, therefore, need knowledge of the language they wish to speak, an understanding of the phonetic structure of the language at the level of the individual word, and an understanding of intonation.

b. Fluency

Fluency is defined The simplicity and rapidity with which a speaker produces speech (Haris in Nugroho, 2015). The term "fluency" is used to describe the ease and speed with which a speaker conveys information. Additionally, it pertains to the speaker's ability to articulate each word or phrase with clarity and precision. As posited by Thonbury in Wulandari (2017), an individual may be considered a fluent A speaker exhibits the following characteristics if:

- 1) Pauses may be prolonged but not frequent.
- 2) Pauses are typically filled.
- 3) Pauses occur at meaningful transition points.

4) There are extended sequences of syllables and words between pauses.

c. Comprehension

In oral communication, responding to a speaker's speech is certainly required because when the listeners give respond well and correctly, it shows that the listeners "comprehend and understanding well what the speakers" are saying. In short, comprehension is important to avoid misunderstanding between a speaker and a listener.

3. The Function of Speaking

Speaking as interaction, speaking as transaction, and speaking as performance. Each speaking activity is very different in terms of form and function and also asks different questions (Zarrabi, 2018).

a. Speak as interaction

Speak as a conversation with what we say as a conversation. This is interactive communication that is done spontaneously by two or more people. Its about how people try to convey their message to others. Therefore, they must use speaking skills to communicate with others. The main objective in this function is social relations. Focus more on the 10 conversation and how they want to present themselves to each other from the message.

b. Speak as a transaction

Create conversations about focusing on the message being conveyed and making others understand what we want to convey, clearly and accurately. In this type of spoken language, students and teachers focus on what meaning or speech they can understand.

c. Speak as a performance

In this case, speaking activities focus more on monologues than on dialogue. The function of speaking as an opening occurs in speeches, public speaking, announcing in public, reopening stories, telling stories and so on. From the above resolutions, it can be agreed how to speak has many meanings, they talk about agreement when speaking in public. All speaking functions are related to guide people in speaking activities.

4. Teaching Speaking

According to Anuradha et al (2014), the following are the principles of teaching speaking skills Encourage students to speak from the very beginning, avoiding the delay until a set stock of vocabulary is taught. Tolerate repetition and short responses initially, allowing learners to engage actively with their existing English proficiency. Introduce structures, phrases, and words for practical use in various contexts, emphasizing extensive drilling. Employ techniques like back-chaining to build complex sentences from simpler ones. Utilize role plays and pair work extensively, ensuring both active participation and correction of errors. Prioritize thorough lesson planning to facilitate smooth execution of activities. Allow learners to make errors at the outset, as interruptions and constant correction can impede fluency and discourage progress.

2. Quantum Learning

a. Definition OF Quantum Learning

Quantum Learning is defined as a set of approaches and philosophies for effective learning in both schools and businesses, applicable to all types of individuals and ages. The quantum learning model is a learning model that seeks to integrate (integrate, synergize, and elaborate) human potential factors as learners with the environment (physical and mental) as a learning context. Structuring the optimal learning environment, both physically and mentally, is needed to support the success of learning Hamdayana (2014: 72).

Quantum Learning model tries to combine the potential of human and the environment. Learning involves physical and mental of human. Therefore it is important to make students' physical and mental aspects are ready to catch the information during the course. Physically relaxed made students' mind was free to absorb the information. This quantum learning model is learning that can cause motivation in students and can improve student achievement (Kosasih and Sumarna, 2013: 91).

Quantum Learning is defined as various interactions that orchestrate energy into light (Deporter & Hernacki, 2013:16). Our body (physical and mental) is represented as energy that can be changed into light (as the representation of

achievement and success) through several of interactions that happen during the teaching and learning process.

Quantum learning is a learning model. Get used to having fun learning.” Huda (2014, p. 192). States that the quantum learning model is a tip, a hint of strategies, and the entire learning process that can be done to sharpen understanding and memory, as well as make learning a fun and useful process De Porter (2005). "model quantum learning is a learning strategy that can sharpen understanding and power remembering and make learning a process that is fun and useful” Mulyasa (2015, p. 78).

Based on the principles outlined above, it seems more accurate to conclude that the teaching approach described emphasizes active student participation, tolerance for errors, and the creation of a supportive learning environment. While the term "quantum learning" typically refers to a specific teaching methodology focused on engaging both hemispheres of the brain for enhanced learning, the principles listed do not explicitly align with the core tenets of quantum learning as defined by its proponents. Therefore, the conclusion that quantum learning is bringing joy to the teaching and learning process may be a bit of a stretch based solely on the provided principles. However, it could be argued that an approach emphasizing active participation, tolerance for errors, and a supportive environment could indeed contribute to a more enjoyable learning experience for students of all ages.

b. The Characteristics of the Quantum Learning

There are various models, methods, and strategies in learning. Each has characteristics both conceptually and deeply Implementation. Sugiyanto (2010: 65-69) said that there are some common characteristics that make up the figure of Quantum Learning.

- 1) The basis of Quantum Learning is cognitive psychology, not physics quantum. The name Quantum is just a term, hence the content that exists in the body Quantum Learning comes from cognitive psychology, not based on Quantum physics theory.
- 2) The nature of Quantum Learning is humanistic, or it can be said that Humans as learners become the center of attention. Quantum Learning Views the Self-

Potential, Thinking Ability, and Motivation of Learners can be optimally developed. Besides that, efforts in Maximizing one's potential should always be rewarded, be it success or success. failure. This is because failure or error is considered as a human symptom, even more so because of such failures It is a form of effort to become a better human being.

- 3) Quantum Learning is more likely to be constructivistic in nature Emphasizing the role of the learning environment to achieve success Learning objectives. The environment and human potential must be able to synergize or support each other and get balanced stimulants so that learning can be successful.
- 4) Quantum Learning relies on quality attention and interaction and meaningful, not just a concept transaction. Learning process seen as the stage of creating quality interactions and meaningful that can transform the mind's abilities and natural talents The learner becomes a useful light for all those involved in Learning. It is in this interaction that communication becomes important.
- 5) Quantum Learning emphasizes accelerating learning by High level of success, this is where learning accelerates assumed to be a Quantum leap. To create learning that The faster with a high success rate, the need for removal of barriers that can slow down the learning process. The trick is to create and manage everything that Support the acceleration of learning, examples include: Changing classroom atmosphere, using musical accompaniment, seating arrangement, and Etc.
- 6) Quantum Learning places a strong emphasis on naturalness and appropriateness in the learning process, rather than artificially created conditions. This emphasis on appropriateness creates a pleasant, comfortable, refreshing, relaxed, healthy, and serene learning environment. Conversely, artificially created conditions tend to generate a tense, rigid, and dull atmosphere. In this regard, collaboration between designers and implementers is necessary to establish naturalness and appropriateness in the learning process.

c. Quantum Learning for Teaching

In applying the Quantum Learning learning model, first It is necessary to know what each student's learning style is. Says learning style is the key to

development performance on the job, at school, and in interpersonal situations. Bobby (2008: 110)

Style learning is also a modality for someone to know how to absorb information more easily. Modalities in learning styles consists of three elements, namely visual, auditory and kinesthetic (Bobbi, 2008: 112).

In general, most people can use all three modalities simultaneously in absorbing certain information, but also It's not uncommon for people to only tend to maximize one of them these three modalities. Michal Grinder (Bobbi, 2008: 112) notes that out of thirty students, there are twenty-two students who can use it all three modalities, while six students stood out only in one modality, and the other two students can use two modalities The main goal is to know students' learning styles, not to force students to be able to master the three existing learning modalities, but to provide facilities so that no student is left behind in absorption information during the learning process. For students who stand out in the visual aspect, the teacher can display illustrations, posters, or interactive displays. For auditory students, accompanying music can be played during learning takes place in a varied and appropriate activity learning. For kinesthetic students, teachers can use games or mini games drama so that students are able to absorb the meaning of learning through body movements what they do.

The model planning framework was put forward by Bobbi (2008: 88) who said that Quantum Learning refers to the concept of "TANDUR", is an acronym for: Growing, Experience, Naming, Demonstrate, Repeat, and, Celebrate. These elements form the underlying structural basis Quantum Learning. Quantum Learning's planning framework is as follows following: 1) Growing 2) experience, 3) name, 4) demonstrate, 5) repeat, and 6) celebrate. is an acronym for: Instill, Experience, Naming, Demonstrate, Repeat, and, Celebrate. These elements form the underlying structural basis Quantum Learning. Quantum Learning's planning framework is as follows following: 1) growing , 2) experience, 3) naming, 4) demonstrate, 5) repeat, and 6) celebrate:

1) Growing: Include students, captivate them, satisfy curiosity them, and make them interested in the material to be taught. This can be done by asking a provocation question about their experiences in everyday life, singing a song

related to the material to be delivered, Another thing that can be done is to give a riddle about something related to matter.

2) Experience: Give students a learning experience, grow the need to know and master something deeper. It can be done by asking students to name the characteristics of something that known to students according to their experience.

3) Naming: In the design of Quantum Learning, the name is done so that students can Stay in the environment where he is studying a material certain and easy to remember. This can be done by Invited to ask questions and answers about objects or things they like or something they don't know. So they are interested in learning because of their curiosity is answered.

4) Demonstrate: Provide opportunities for students to relate experiences with new data, so that they internalize it and make it happen personal experience. This can be done by practicing, explain, or display something they know from the results learn it. This will make students feel capable and more confident self.

5) Repeat: Gluing the overall picture. Repetition in this case useful for deepening students' memories of existing material studied. This can be done by holding games in groups to name, explain, guess, or put into practice something they have learned.

6) Celebrate: According to Bobbi DeP Potter, something worth learning is worth learning anyway Celebrated, celebrations also add to the spirit of learning. Forms of celebration In this case it can be applause, reinforcement, or objects whose nature makes students feel valued for their work and always Passion for Learning.

In the learning activities in the Quantum Learning teaching model, various methods are employed, including questioning, discussions, demonstrations, group work, experiments, and assignment giving. The steps that can be applied in the teaching and learning process through the Quantum Learning model are as follows:

- a) Power of Ambak (what's in it for me)
- b) creating the right learning environment
- c) cultivating a champion mindset
- d) unleashing one's learning style
- e) accelerating learning

f) incorporating music

d. The Advantages and Disadvantages of Using Quantum Learning

In applying a learning method, there must be advantages and disadvantages.

1) Disadvantages Quantum learning

The quantum learning model is marked by its complexity, demanding a profound grasp of quantum mechanics, intricate mathematics, and associated technologies for both understanding and application. This intricate nature renders its application challenging within traditional educational frameworks. Moreover, the implementation of quantum learning models necessitates sophisticated and expensive infrastructure, such as quantum computers and related hardware, which are still in their developmental stages and not widely accessible. Consequently, the limited availability of such technologies poses accessibility constraints, impeding the widespread adoption of the quantum learning model. Furthermore, utilizing the quantum learning model entails navigating a steep learning curve, particularly for educators and learners lacking a robust foundation in quantum mechanics and complex mathematics. This hurdle presents a significant barrier to its integration into educational settings, as overcoming this challenge requires substantial time and resources.

2) Advantages Quantum learning

The potential for increased learning speed is a promising aspect of quantum learning, leveraging unique properties of quantum mechanics like superposition and entanglement. By harnessing these principles, the quantum learning model enables exploration and processing of information in ways conventional models cannot match. Moreover, it offers a solution to optimize complex problems that classical computers struggle with. In education, this means refining learning strategies and overcoming challenges more effectively. Furthermore, the pursuit of a quantum learning model fosters innovation and progress in both education and computer science. Research in this area could lead to groundbreaking technologies and methodologies, enhancing the efficiency and effectiveness of learning processes.

2.2 Previous Study

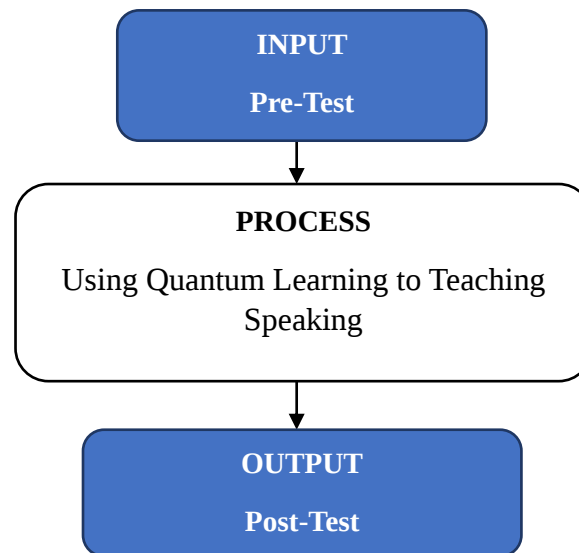
1. The research titled "The Effect of the Quantum Learning Model on Foreign Language Speaking Skills, Speaking Anxiety, and Self-Efficacy of Secondary School Students" utilized a 3x4 semi-experimental design with experimental, control, and placebo groups, and included pre-tests, post-tests, retention tests, and retention monitoring tests over ten weeks. The study involved three seventh-grade classes. The analysis of the second hypothesis revealed no statistically significant differences in English self-efficacy between the groups. Similarly, the third hypothesis analysis showed no meaningful differences in speaking anxiety across the groups. The findings suggest that the Quantum Learning Model did not significantly impact students' foreign language speaking skills, self-efficacy, or speaking anxiety. The study concluded that while the Quantum Learning Model is suggested to have potential benefits, the observed results did not show significant improvements. Teachers are encouraged to adapt their classrooms and curricula to Quantum Learning principles, and future research could explore its effects on other language skills such as reading, listening, or grammar.
2. The research titled "The Effectiveness of Quantum Learning to Teach Speaking Viewed from Students' Self-Confidence" compared the Quantum Learning Method with the Direct Instruction Method in teaching speaking skills to eighth-grade students at SMPN 2 Selomerto, Wonosobo. Using a 2x2 factorial design and cluster random sampling, the study included class VIII.C as the experimental group (Quantum Learning) and class VIII.D as the control group. Results indicated that the Quantum Learning Method was more effective in teaching speaking compared to Direct Instruction. Students with high self-confidence showed better speaking competence than those with low self-confidence. However, there was no significant interaction between teaching methods and students' self-confidence. The study also highlighted factors like pronunciation, grammar, vocabulary, comprehension, and fluency as influential in speaking competence. The findings suggest that Quantum Learning Method significantly improves

speaking scores, with higher mean scores in the experimental group compared to the control group.

3. The research titled “The Effectiveness of Quantum Teaching toward Students’ Speaking Achievement” aimed to evaluate if the Quantum Teaching method significantly improved students' speaking skills. Using a quasi-experimental design with non-equivalent control groups, the study involved 58 seventh-grade students at MTsN Pulosari Jambon Ponorogo, divided into an experimental group (29 students) and a control group (29 students). Pre-tests and post-tests measured students' speaking achievements. The experimental group, taught using the Quantum Teaching method, had a pre-test mean score of 55.69 and a post-test mean score of 74.76. The control group had pre-test and post-test mean scores of 54.21 and 64.21, respectively. The t-test analysis showed a t-observed value of 5.17, which was higher than the t-critical value of 2.00. This indicated that the Quantum Teaching method significantly improved speaking achievement. Thus, the Quantum Teaching method was effective in enhancing students’ speaking skills.

Based on the research above, the data shows that students are satisfied in learning using quantum learning, especially in learning speaking, because the data shows that students find it easier to practice speaking if there is media and create an interesting atmosphere in the class. So, the researchers concluded that, if the Quantum learning method has a good impact on improving students' speaking skills, then it would be a good idea if quantum learning was combined in teaching speaking skills at SMKN 1 Palopo.

2.3 Conceptual Framework



Based on the framework above, it can be explained that the researcher will give a pre-test to class XI students at SMKN 1 Palopo to see the students' speaking skills with the scores obtained before being given treatment. then the researcher will apply quantum learning by applying the technique (TANDUR) in the treatment process, the final stage after giving the treatment the researcher will give a post-test to the students to see the students' speaking abilities with the scores obtained after being given the treatment.

2.4 Research Hypothesis

Kinds of hypothesis which can be estimated based on the explanation above are:

- H0: Using Quantum Learning is not effective to improve students speaking skill at the XI grade SMKN 1 Palopo.
- H1: Using Quantum Learning is effective to improve students speaking skill at the X1 grade SMKN 1 Palopo.

Hypotheses testing:

H1 is accepted, if Sig. (2-tailed) < α (0.05)

H0 is rejected, if Sig. (2-tailed) > α (0.05)

Based on the criteria above, it can be concluded that if significant (2-tailed) lower than ($\alpha = 0.05$), it indicates that H_1 is accepted. It means that the implementation of Quantum learning is effective to speaking skill at the XI grade SMKN 1 Palopo. Meanwhile, if significant (2-tailed) is higher than ($\alpha = 0.05$), it indicates that H_0 is rejected. It means that the implementation of Quantum learning is not effective to speaking skill at the XI grade SMKN 1 Palopo.