



**THE EFFECT OF USING QUANTUM LEARNING MODEL ON THE
EIGHTH GRADE STUDENTS' SPEAKING ACHIEVEMENT
AT SMPN 11 JEMBER**

THESIS

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LANGUAGE AND ARTS DEPARTMENT
THE FACULTY OF TEACHER TRAINING AND EDUCATION
JEMBER UNIVERSITY**

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Composed to Fulfill One of the Requirements to Obtain the Degree of S1 at the
English Language Education Study Program, Language and Arts Department
The Faculty of Teacher Training and Education
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DEDICATION

This thesis is honorably dedicated to:

1. My beloved late father Syamsul Mu'arif, thank you for the life you've showed me, thank you for the value of life you've taught me. You will always be my inspiration in life.
2. My sun shine, my lovely mother Anni Astutik, thank you for your unconditionally love, thank you for brightening my life with all your cares. I will always by your side.
3. My sisters Nurul Ismillayli and Isnaini Karimah, thank you for your guidance, I hope distance will never limit my love for you.

MOTTO

“Shame derives its power from being unspeakable.¹”

(Brene Brown, 2012)

“ Verily, with the hardship, there is relief. So when you have finished (from your occupation), then stand up for Allah worship. And to your lord (alone) turn (all your intentions and hopes and) your invocations²”.

(Al- Quran: Al-Insyirah verse 6-8)

Source

[http://www.iqraresearch.com/surah-Inshirah\(solace\)-translation.html](http://www.iqraresearch.com/surah-Inshirah(solace)-translation.html)¹

<http://www.goodreads.com/quotes/tag/speaking>²

CONSULTANT APPROVAL

**THE EFFECT OF USING QUANTUM LEARNING MODEL ON THE
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AT SMPN 11 JEMBER**

THESIS

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8. The eighth grade students of SMPN 11 Jember in the 2014/2015 academic year.

I believe that this thesis might have some weaknesses. Therefore, any criticism from those who really want to improve the thesis will be wisely appreciated.

Jember, 30 September 2014

The Writer

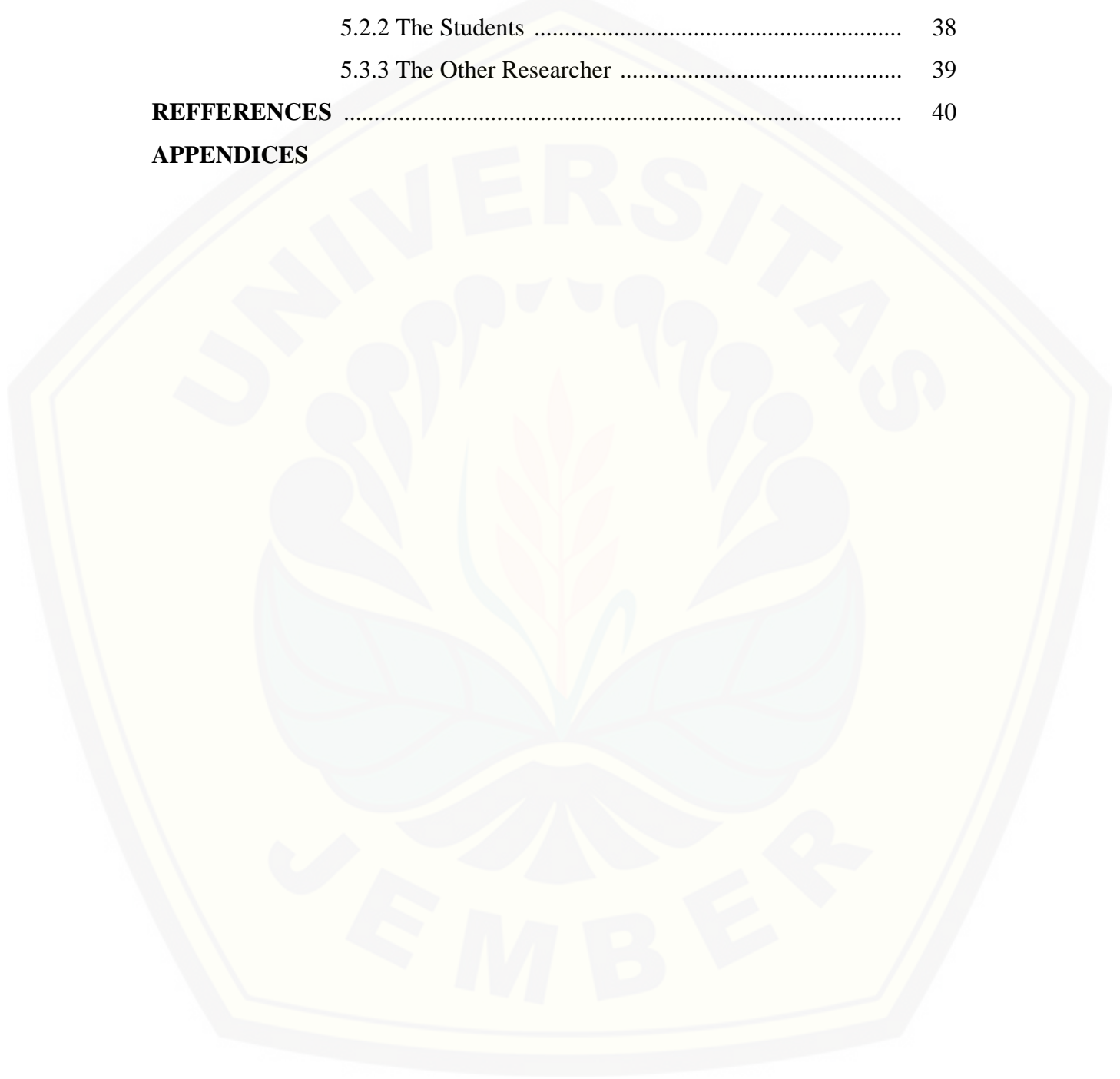


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SUMMARY

The Effect of Using Quantum Learning Model on the Eighth Grade Students' Speaking Achievement at SMPN 11 Jember; Nur Ijabah, 100210401002; 2014: 53 Pages; English Language Education Study Program, Language and Arts Department, The Faculty of Teacher Training and Education, Jember University.

Speaking takes an important role in our life because we speak every day. We are talking, asking, arguing, giving opinion, ordering, directing, and even gossiping in oral form. For some people, speaking in English is relatively difficult. It needs longer time to say words in English because the ideas in our mind should be translated into English at the time we are speaking. This also happens to foreign language learners. Meanwhile speaking in English becomes one of the skills that should be mastered in the curriculum. Spoken English is often considered as one of the factors that determines someone's ability in English.

To develop speaking skills over the students, the teacher should apply the effective learning model that can encourage the students to be active during the course. For example by using Quantum Learning Model. Quantum Learning or accelerated learning is a teaching and learning model that could give comfort and relax in the learning environment that later on will maximize information absorption during the teaching and learning process. The purpose of this research was to know whether or not there was a significant effect of using Quantum Learning Model on the Eighth Grade Students' Speaking Achievement at SMPN 11 Jember.

The research design was quasi experimental. It began from conducting homogeneity test by collecting students' English scores from the English teacher, deciding the experimental class and control class, giving treatment to the experimental class and teaching the control class using Communicative Language Teaching, then giving the same post-test to both classes, and the last analyzing the result of the post test by using independent sample t-test.

The area of this research was SMPN 11 Jember which was chosen because Quantum Learning Model had never been used by the English teacher in teaching

English especially for teaching Speaking. Based on the result of the homogeneity test and random sampling method by lottery, class VIII A and class VIII B were chosen as the experimental class and the control class.

The result of this research showed that there was a significant effect of using Quantum learning Model on the eighth grade students' speaking achievement. It was proved by the value of significant column of t-test table by using SPSS software, and the result was 0.000 which was lower than 0.05. besides the t computation was higher than the t table ($3,844 > 1,995469$).

Based on the explanation above, it was concluded that there is a significant effect of using Quantum Learning Model on the eighth grade students' speaking achievement at SMPN 11 Jember.

CHAPTER 1. INTRODUCTION

This chapter presents some aspects dealing with the topic of the research. They are background of the research, problem of the research, objective of the research, and significance of the research.

1.1. Background of The Research

Speaking takes an important role in our life because we speak every day. We are talking, asking, arguing, giving opinion, ordering, directing, and even gossiping in oral form. Brown and Yule (in Richard, 2008: 21) make a useful distinction between the interactional functions of speaking, in which it serves to establish and maintain social relations, and the transactional functions, which focus on the exchange of information. Speak fluently and accurately provides easiness in connecting with other people. It will be easy to make friends, participate in important event, talk to client, and get better job. However some people have problem in expressing their ideas orally. For example, there are some people who speak fast and smooth but has no content. Moreover content is important in speaking. As stated by Richard and Schmidt (2002: 108), comprehension of speaking only got if it involves the information contained in the message as well as the speaker's intention. This reality becomes worse when people are asked to speak in English.

For some people, speaking in English is relatively difficult. Luoma (2004: ix) says that speaking in foreign language is very difficult and the competence in speaking takes a long time to develop. It needs longer time to say words in English because the ideas in our mind should be translated into English at the time we are speaking. This also happen to foreign language learners. Meanwhile speaking in English becomes one of skill that should be mastered in the curriculum. Spoken English is often considered as one of factors that determines someone's ability in English. According to Richard (2008: 19), "the mastery of speaking skills in English is a priority for many second-language or foreign-language learners". It will be so

beneficial to speak in English fluently because it will lead the students' easiness in communicating with native speaker and get lots of information about English.

To develop speaking skill over the students, the teacher should apply the effective learning model that can encourage the students to be active during the course. There are some methods that can be used in teaching English especially speaking. They are Cooperative Learning, Contextual Teaching and Learning, Communicative Language Teaching and Quantum Learning. But in this research, the researcher only focuses on Quantum Learning model as an approach to teach speaking to EFL students. There are some considerations in choosing this model to be applied in the classroom when teaching speaking.

First, it is about the effectiveness. Quantum Learning or accelerated learning is a teaching and learning model that could give comfort in learning environment that later on will maximize information absorption during the teaching and learning process. As stated by Larsen-Freeman (1986: 84-86) described that suggestopaedia emphasize a physical environment and atmosphere that make students feel as relaxed and comfortable as possible. Quantum Learning with suggestopaedia method create encouraging learning atmosphere in which build students' active participations during the course.

Secondly about the practicality, Quantum Learning is a teaching and learning model that could be easily applied in the classroom. It is proven by the application of this model in Super Camp. This program use Quantum Learning model as their basic method in bringing success to the students in improve their self confidence, motivation, score, etc (Deporter & Hernacki, 2013). Quantum Learning also has been applied in Indonesia. Quantum learning had been used by some researcher to improve students' achievement in some subjects. It had been tested in some educational institution including school. The result showed that Quantum Learning can increase positive attitude such as enthusiastic, learning spirit, feels enjoy and satisfied in learning, building students' bravery, and significantly increase students' curiosity (Rutoto, 2010).

Quantum learning is a combination of some learning models. They are Suggestopaedia (Accelerated Learning), Neuro-Linguistic Program (NLP), and its own method (Deporter & Hernacki, 2013). The combination of positive suggestion, busting obstacles in learning, and theories about how human's brain works makes this learning model deserves to be implemented in the classroom. In English subject, Quantum Learning had been scrutinized to know its significance in students' speaking achievement. The research was conducted by Siti Karmilah Susilawati (2012) entitled: Teaching Speaking Using Quantum Teaching Approach at The First Grade Students of SMPN 1 Telukjambe Barat. The result showed that teaching speaking using Quantum Learning model has significant effect on students' speaking achievement. Therefore based on consideration above, the researcher will conduct an experimental research entitled: "The Effect of Using Quantum Learning Model on The Eighth Grade Students' Speaking Achievement at SMPN 11 Jember".

1.2. Problem of the Research

Based on the background of the research above, the problem of this research is formulated as follows: "Is there any significant effect of using Quantum Learning model on the eighth grade students' speaking achievement at SMPN 11 Jember?"

1.3. Objective of the Research

Based on the problem of the research, the objective of the research is to know whether or not there is a significant effect of using quantum learning model on the eighth grade students' speaking achievement at SMPN 11 Jember.

1.4. Significance of the Research

The results of this research are expected to be useful for the researcher, English teacher, the students, and for other researcher in the future

1.4.1. English Teachers

The explanation of Quantum Learning model in this research is hoped to give information about Quantum Learning to the English teacher in order to built better teaching and learning process. The lesson plan with Quantum Learning model is hoped to be a reference for the teacher to apply Quantum Learning model in English course especially in speaking.

2.2.2. The Students

Hopefully, the use of this model in teaching and learning process can help the students improve their speaking ability. Quantum learning is a model of learning in pleasant and enjoyable way in which the students are expected to be able to find new experience in their learning.

2.2.3. Other Researchers

The results of this research is expected to be useful for the researcher as information and reference to conduct further research about the use of Quantum Learning model in teaching learning process.

CHAPTER 2. LITERATURE REVIEW

This chapter explains about the review of related literature. It presents some important theories and concepts related to the topic discussed briefly. There are five significant discussions in this chapter. They are Speaking Achievement of Foreign Language Learner, Quantum Learning Model for Language Learner, Quantum Learning in Speaking Achievement, Previous Research of Quantum Learning, and Hypothesis.

2.1 Speaking Achievement of Foreign Language Learner

Hughes (2003: 13) states that achievement is related to the test that is done to know how successful students in achieving the objectives of a course. However McMillan (1992: 117) defines that achievement emphasizes on what has been learnt by the students during the course. Based on those definitions it can be concluded that speaking achievement is the ability in speaking that is got by the students based on the course objective. This ability could be measured by giving them a speaking test.

According to Brown and Yule (1983:103), teacher should assess all of the aspects of speaking, not in isolation, but as part of his assessment of the students' ability to communicate effectively in the spoken mode because one of the main aims of most English Teacher is to make their students are able to communicate information effectively in spoken English. To held speaking test the researcher often used written test about dialogue, they forget that the speaking test only consider as the valid test if only the students are asked to speak the dialogue rather than write it. Besides assessing speaking should cover five aspects, those are pronunciation, vocabulary, grammar, fluency and content (Hughes, 2003). However this research only focuses on pronunciation, fluency and content of speech aspect.

First aspect is pronunciation. Hewings (2004) states, "pronunciation is some of component speech from the individual sounds that make up speech, to the way in which pitch, the rise and fall of the voice to convey meaning". English pronunciation

might be a great deal for the students to be learned because the way words are pronounced do different with their spelling. Besides English pronunciation seems to be difficult because there are some sounds that do not exist in Indonesian. For example there is no sound “æ” like in the word “hat” in Indonesian. In addition Hughes stated that foreign accent requires concentrated listening, and mispronunciations lead to occasional misunderstanding and apparent errors in grammar or vocabulary (Hughes, 2003:131). This emphasized that it is a must for the researcher to take it into account in teaching English speaking, because different pronunciation will lead different meaning and ruining the process of communication.

The second aspect is fluency. Fluency in speaking English is the ability of students to express ideas in English which is effortless and smooth (Hughes, 2003:132). The students speak English fluently if they do not need much time to say words and translate it into English, or we can say that the words just come out automatically without hesitation. Communicating with other people orally needs fluency because the information could be got by the listener if there is no problem in delivering the speech. That is why it is important to make the students speak English fluently, and the only way to make it happens is by guiding and give them opportunity to practice their speaking a lot.

The third aspect is content of speech. Content becomes the center of oral communication because speak without essential content is useless. Underhill (Underhill, 1987: 101) describes that the features of content refer to mention of particular events, actions or attributes that are important to a story or description. Here he wants to emphasize that content is important information that should be exist in the meaningful speaking activity.

2.2 Quantum Learning Model for Language Learner

Quantum Learning is firstly introduced by Bobbi DePorter, the chief of Learning Forum – a company that focus on developing education programs. Quantum Learning starts to develop rapidly after its success at SuperCamp program.

SuperCamp is a ten day program for the teenagers in United State of America that is established in 1982. This program was extremely successful in creating better quality of students. It was able to improve 68% of learning motivation, 73% test score, 81% of self-confidence, and 84% of self esteem; it was also able to maintain positive attitude of SuperCamp and 98% keep using skills that they got in SuperCamp (Deporter & Hernacki, 2013:19).

The idea of Quantum Learning comes from Suggestopaedia Method, a learning method that develops by Georgi Lozanov – a Bulgarian educator. This method believes that a suggestion could influence learning achievement, and every single detail gives positive and negative suggestion. The other term of Suggestopedia is Accelerated Learning. According to Stevic in Richard et al (Richard, et. al: 2001: 100) “suggestopaedia is a specific set of learning recommendation derived from suggestology, which Lozanov describes as a study of consciousness and/ or unconsciousness that human beings are constantly response to”. This means that Quantum Learning model is a method in which gives the students direct and indirect instructions coming from the researcher, environment, and surroundings.

Besides Suggestopedia Method, Quantum Learning also includes important aspect in Neuro-linguistic Program (NLP). It is a research about how actually brain set the information. This program researched the relationship between language and attitude that create understanding between teacher and students.

Quantum Learning model tries to combine the potential of human and the environment. Learning involves physical and mental of human (Sunarti: 2014). 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.

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. Those interactions orchestrate students' ability and natural talent become achievement and knowledge that bring benefits for their life.

2.2.1 Principles of Quantum Learning

Quantum Learning consists of five principles, they are *Everything Speaks*, *Everything is on Purpose*, *Experience Before Label*, *Acknowledge Every Effort*, *If It's Worth Learning It's Worth Celebrating* (Deporter, et. al: 2002: 07). This principle is the basic principles that should be applied in the Quantum Learning class.

The first principle is *Everything Speaks*. Speak means sending learning message to the students. Everything in the classroom such as environment, the researcher's body language, students' worksheet, the researcher's learning design; send learning message to the students.

The second principle is *Everything is on purpose*. All the things happen during the teaching learning process, both the researcher and students activity has purpose that should be reached till the end of the learning process.

The third Principle is *Experience Before Label*. Our brain develops rapidly by the existence of complex stimulation that will let the curiosity appears. Therefore, learning process would be better if the students experience the information before getting the name everything they are going to learn.

The fourth principle is *Acknowledge Every Effort*. Learning takes a risk. Learning means stepping out from our comfort zone. While experience this phase, the students deserve to get recognition of their proficiency and confidence from the researcher.

The fifth principle is *If It's Worth Learning, It's Worth Celebrating!* Celebration is a breakfast for the champion. Celebration gives feedback about advancement and improves association of positive emotion and learning.

2.2.2 Supporting Factors of Quantum Learning Model

In quantum learning model, a classroom is likened as a stage in which each instrumentalist has their own role. It is also happen in the class room, teacher and students should know their own role in order to play a good play. A classroom also should be a home like for the students. It is a place where they not only could get knowledge and information, but it also a place where they learn to be responsible, respect other people, a place to feel the joy and love, so that they could be truly human. As stated by Bancroft (1999:56) the suggestopaedia classroom environment is pleasant and cheerful, with soft, unobtrusive lighting. Therefore in the application, Quantum Learning has some supporting factors, they are:

a. Music

Music is one of the keys of Quantum Learning model. Music is the effective way to make the right brain busy when the left brain focus on cognitive activity. In other word music makes human brain focus on the cognitive activity without being disturbed by the right brain. Students have more concentration in learning while they are listening to the music.

Music that was used in this research was Baroque music. According to Gao (2010: 03) Baroque music helps the human brain produces alpha waves, and help people have long term memory.

Besides Gunadi (2012: 49-50) said that Baroque music creates relaxation and concentration because it helps human in alpha condition. Alpha wave is a condition in which brain has wave 8-13,9 hertz. It means that the brain is in relaxed and comfortable condition and it is suitable to receive information.

Thus the use of Baroque music helps the students in learning process because they have more concentration during the teaching and learning process. Below are the list of Baroque music that were used in the teaching and learning process:

1. Giuseppe Tartini: violin concerto in A major, D9 III Allegro
2. Wolfgang Amadeus Mozart: Flute concerto no. 1 in G major. K. 313 Rondo

The researcher used the baroque music in the first and second concert in the teaching and learning activity in the two meetings. This music was instrumental music which has no lyrics. The existence of lyrics might disturb the students during the course. It also played in soft volume as it used only for relaxation.

b. Ornaments

Quantum Learning allows the use of some ornaments in the classroom to support the teaching and learning process. Some ornaments used in this research as media. These media aims to encourage the students and make students more understand to the material given. According to Tileston (Tileston, 2003:01) our brain rely on stimulus from the outside for learning, this is just one of the reasons that teaching with media is brain friendly. The media used in this research is visual media such as posters, pictures, texts, and birthday cake. According to Cowen (in Geerling, 2011: 02) Visual media make concepts more accessible to a person than text and help later recall. In other words visual media such as posters and pictures give long term memory about what students have learned.

c. Classroom Atmosphere

Classroom atmosphere becomes an important factor in applying Quantum Learning model. Classroom atmosphere is defined as the aspects of intellectual, social, emotional, and physical environments in which the students learn (Ambrose, et. al.: 2010: 170). Teaching and learning process should give comfort and joyful atmosphere for the students. According to Walberg and Greenberg (in De Porter, et. Al, 2002:19) good atmosphere will lead good emotion of the students. This good emotion will accelerate their learning. Classroom atmosphere is the main psychological determinant that influences academic learning. It is important for the

researcher to create superfine atmosphere that unique for them; an atmosphere that makes them feel safe but challenged, understood and celebrated.

A condition with full of excitement also brings happiness in learning. Teacher is expected to create good atmosphere during the teaching and learning process because classroom atmosphere will affect students' ability to focus and absorb the information. Therefore, the researcher should make the class atmosphere as enjoyable as possible. It will support the learning achievement. The existence of posters will encourage the students to reach successful learning. That is why there are some posters hung around the classroom to support subconscious learning in order to influence optimized learning (Christopher, 2011: 98).

Some relaxing aspects were put in classroom to stimulate the brain work such as music, plants, and fragrance. Music unlocks the key of optimal learning situation and help to create association. Plant with high of oxygen will help the students in learning because the more we get oxygen, the better our brain works. Fragrance also helps our brain work better. According to Hirsch (in Deporter, et. al: 2002) human can increase their creative thinking ability as much as 30% when it is given certain fragrance. For instance the fragrance of Chamomile, mint, rose, cinnamon, and lavender are believed to improve mental alertness.

Christopher (2011: 98) explains:

“suggestopaedia emphasizes a completely different classroom atmosphere for learning the target language. It is important to have a good classroom, and the physical surroundings atmospheres of the classrooms are vital to help the learners feel comfortable and relaxed”.

In applying this method, the researcher built up superfine classroom atmosphere by setting up the classroom into birthday party situation based on the theme that is going to be learn. In designing the material, the researcher should build up students' interest and increase students' participation. The material design was also made to create challenging atmosphere. The students were invited to have mini

competition in finishing the task given. The material should be set up as the students' centered learning. This activity was effective to make students' participate actively during the course.

As stated by Sunarti (2014):

“Students are likely to learn faster when they love to study by their selves. Quantum Teaching makes them like as they learn it without any help. While student enjoy the study, teacher only need less interactions as it is best to let students have interactions between them”.

If those aspects are applied in the right way, then teaching and learning process will run successfully. These combinations will build the sense of belonging among teacher and students. And this sense of belonging will make the students stay longer in the classroom. They will come to school with pleasure not in pressure.

2.2.3 The advantages and Disadvantages of Quantum Learning Model

Quantum Learning provides enjoyment during the teaching and learning process. Quantum Learning combines the joy and smile with the learning activities; therefore it makes the students like as they learn it without any help (Sunarti: 2014). The use of music in Quantum Learning makes the students more easily to catch the information.

Quantum Learning provides good interaction between students and teacher. Synergistic interaction between teacher and students orchestrate the ability and skill of both teacher and students into an achievement (Ahira, 2013). Good interaction created the sense of belonging between teacher and students and they feel safe during the teaching and learning process.

Quantum Learning emphasize that every students' effort should be acknowledged. The important of acknowledgment for the students is that the students will be more motivated in the next meeting (Deporter & Hernacki, 2013).

Acknowledgment or reward made the students feel confidence to give better performance in learning.

Besides the advantages, Quantum Learning model also has disadvantages. The implementation of Quantum Learning model in the classroom requires teacher to work and try harder to guide the students to get successful learning. The researcher has to be creative, innovative and attractive in teaching. Besides it needs more time to design the environment and material as comfortable as possible. These disadvantages could be overcome only if the researcher has high commitment, hard work, and belief that Quantum Learning model could be applied in the classroom.

2.2.4 General Frame Works of Quantum Learning Model

Design framework or syntaxes in Quantum Learning model is a key to apply Quantum Learning model in the classroom. It deals with how the learning materials developed. The design frameworks in Quantum Learning are *Enroll, Experience, Learn and Label, Demonstrate, Review and Reflect, and Celebration* (De Porter, et. al.: 2002)

The first step is *Enroll*. Built up students' interest by leading them to find the benefits of learning (what's in it for me?). Explaining the benefits of learning means that the researcher associates between learning and real world. By understanding the benefits of learning, students will create their own visions for their future life. These visions will motivate them to be success in the school. It happens because they have already known that what they learn today will give significance effects for their future.

The second step is *Experience*. Create or provide general experience that can be understood by all of the students. According to Rogers (in Genry: 1990)) experience in learning is a quantity of personal involvement in both his feeling and cognitive aspects being in the learning event. Involvement of the students in their learning will make the students explore further about the material that is going to be

discussed. If it happens, their curiosity will appear. They will be curious and try to get the name what they have learnt.

The third step is *Learn and Label*. The researcher provides key words, concept, model, pattern, strategy of the materials as an input for the students. Giving name will satisfy the natural desire of the brain to give an identity, to put them in order, and to define. Here the important concepts and patterns are explained by the researcher. The researcher also expected to give the strategy in solving the learning problems.

The fourth step is *Demonstrate*. Provide an opportunity for the students to show that they know. Practice is important in learning language; therefore teacher gives the students chance to practice what they have learnt. Demonstration will give the students an opportunity to perceive and apply the knowledge they got in their life.

The fifth step is *Review and Repeat*. Show them the way to repeat and conclude the material. Besides emphasize this phase by providing “I know that I do know this” session. Repetition will strengthen nerve connections and raise a sense of “I know that I do know this”. Repetition could be done by using three kinds of learning modality namely visual, auditoria, and kinesthetic.

The sixth step is *Celebration*. Recognize the accomplishment, participation; knowledge and skill acquisition is badly needed. Celebration is driving factors that will motivate students in continuing their success. Having such a good motivation is essential in learning. Students will be active participated in learning when they are motivated than they are not (Shabait: 2010). Higher motivation creates better performance in learning. Therefore the researcher should build up students' motivation as higher as possible.

2.2.5 Quantum Language Learning Procedures

As stated in the previous sub chapter that in applying Quantum Learning model, the researcher should applied the procedures, they are *enroll*, *experience*,

learn and label, demonstrate, review and repeat, and celebration. Those applications will be explained as follows:

1. Enroll

This step was a warming up activities to build up students' motivation. To build up students' motivation, the researcher gave them positive suggestion about on how learning English is so much fun. The researcher explained the benefit of learning the materials given. The researcher invited them to speak up by asking some leading questions related with parties and watching movie. The researcher also asked them to observe some related posters and invite them to tell their opinion about the posters. This was done to build up their curiosity. After that the researcher told them that we were going to have a birthday party and we would invite people to our party while showing a birthday cake. This positive suggestion motivated students to explore more and engage in the teaching and learning process.

2. Experience

In this step they were invited to experience a birthday party through imagining a birthday party situation that was directed by the researcher. This was done in relaxing situation. It was assigned as the first concert that's why classical music was played. It was hoped that this activity will attract students' interest to learn how to invite someone. Because linking the learning material and real life is the effective way to attract students' interest.

The second concert was begun by reading a dialogue by the researcher in slow rhythm. The students only listened to the researcher's reading. The classical music was also played. The dialogue told about the material given that was giving, accepting, or refusing invitation. Some related questions were given to achieve their understanding about the dialogue. The answer was told orally by the students. It was also the example for the students to do the next tasks as their experience in learning through dialogue.

This step relates with the students' involvement in learning something. Before getting the name of what they are going to learnt, it is much better if they experienced

or found the name by themselves. Before knowing the expressions of giving, accepting or refusing invitation, they were given some dialogues and related questions consisting of the expressions of giving, accepting, or refusing invitation. It was done to make them experience their learning.

3. Learn and label

After the students had experienced how to invite people through dialogue, they were asked to label the expressions in the dialogues. Before doing this, the researcher gave them example to do the labeling. In this step their curiosity was fulfilled. They will know that what they have got before in the experience step was the expressions of giving, accepting, or refusing invitation. The other expressions outside the dialogue were given to be labeled by the students. It made them more understand the concept.

Repeating all the expressions after the researcher was done as the next task. It was done to give them the right example of how to pronounce the expressions. It is important to do as we remember that it was speaking course. The students should be invited to speak up as much as possible. Some inquiry questions were given to strengthen their understanding about the concept.

4. Demonstrate:

They have already known the concept of how to invite people, and then it is time for them to show what they have known. The researcher gave them guided dialogue before asking them to make free dialogue as their input. The task of guided dialogue was done by filling the missing expressions. This activity helped them to make free dialogue correctly. Then it was continued by making free dialogue with some situations which were real life situations. The last task of this step was asking them to perform the dialogue in pairs.

5. Review and repeat:

The researcher gave some objective questions to review all the material that had been discussed and let the students to give checklist to the concept of the material

if they could answer the questions correctly. This was done as review session to know whether or not they had understood the material.

Then they repeated some important aspects of the material in order to make them remember longer. For example what should be mentioned in inviting people. It was done through kinesthetic activity by completing the invitation card in groups.

6. Celebration

The celebration was done by giving presents for the students who win “the game”. It motivated the students to perform better in the next meeting. The researcher also involved all the students to have mini celebration for example by having a mini birthday party or singing a song. This activity made the students love the learning process then they will wait for another course.

2.3 Quantum Language Learning in Speaking achievement

As it stated in the previous chapter, speaking is not only about delivering ideas orally. Fluency, pronunciation, and content of speech should be considered by the researcher in teaching speaking. As stated by Brown and Yule (1983: 103) the researcher should consider aspects of speaking as the main aim of teaching English is to make students communicate effectively in English. Therefore the researcher should consider the teaching and learning method which helps the students in mastering the aspects of speaking. Quantum learning model was the solution for the researcher to empower the students in learning spoken English.

Quantum learning model provides joyful and relaxing way for the students in learning. In relaxing condition, the students' will not necessary to try hard in learning language as learning the language will just come easily and naturally (Larsen and Freeman: 2000). Quantum Learning with suggestopaedia method helped students to erase the barriers of learning. As explained by Lozanov (1978:259) “the purpose of suggestopaedia is to set free the mind of students from the negative assumptions that have been established”.

The existence of music, posters, and other supporting ornaments in Quantum Learning encourage double planedness (Christopher: 2011). Double planedness refers to subconsciously stimulation that coming from learning environment. In other words the students not only learn through the direct instruction from the researcher but also indirect instruction from the learning environment.

Furthermore the activities of teaching and learning in Quantum Learning are set to be student centered learning. It gives students self confidence and less bored in accomplishing the task given. While the students enjoy the study, teacher only needs less interaction as it best to let students have interaction between them (Sunarti: 2014). By this kind of learning activity, the students were let to practice the language as much as possible.

2.4 Previous Research of Quantum Learning

The previous research about the use of quantum learning model on students' speaking achievement was conducted by Siti Karmilah Susilawati (2012) entitled: Teaching Speaking Using Quantum Teaching Approach at The First Grade Students of SMPN 1 Telukjambe Barat. This research was conducted with hypothesis that the use of Quantum Learning model has significant on students' speaking ability. The result showed that the mean score of pretest was 20.25; the mean score of posttest was 26.75 and the t observed was 650. The t critical value with degree of freedom 39 and level of significance at 5% (0, 05) was 2.02. Based on the result obtained it could be said that the alternative hypothesis was accepted because the t observed is higher than t table ($20.25 < 26.75$). It also means that teaching speaking using Quantum Teaching approach was effective to improve students' speaking ability at SMPN 1 Telukjambe Barat.

Speaking English requires mental and physical activity (Susilawati: 2012). Therefore, the teaching and learning process should maintenance right environment and atmosphere. The existences of music, plant, fragrance, affirmation posters, and chair arrangement in Quantum Learning model give the comfortable, pleasant, and

relaxing environment. Besides positive belief in learning, the sense of belonging between teacher and students, and material design also give significant impact to the students' success in learning. These aspects in Quantum Learning Model built up students' motivation and curiosity so that they participate actively in the teaching and learning process. This active participation makes students' speaking ability improved.

2.5 Hypothesis

Based on the problem and the review of the related theories, the research hypothesis is formulated: there is a significant effect of using Quantum Learning model on the eighth grade students' speaking achievement at SMPN 11 Jember.

CHAPTER 3. RESEARCH METHODOLOGY

This chapter concerns with the research design, operational definition of the terms, area determination method, research respondent determination method, data collection methods, and data analysis method.

3.1 Research Design

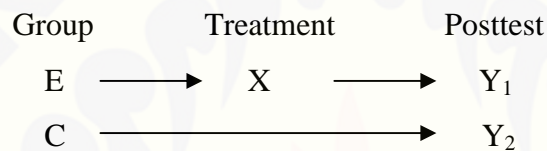
This research used Experimental design. “Experimental research is a scientific investigation in which the researcher manipulates one or more independent variables, controls any other relevant variables, and observes the effect of manipulations on the dependent variable” (Ary et. al., 2010: 265). This research aimed to investigate whether or not there is a significant effect using Quantum Learning model on the eighth grade students’ speaking achievement at SMPN 11 Jember. Quantum learning model as the independent variable was manipulated to be applied in the experimental group as the dependent variable.

“The essential requirements for experimental research are control, manipulation of the independent variable; observation and measurement” (Ary, et. Al., 2010: 267). Control here meant arrangement of situation in which the use of Quantum Learning could be investigated. Manipulation also meant treatment given to experimental group. Meanwhile observation was done after applying Quantum Learning in experimental group. The observation was done through speaking test measurement.

There are three kinds of experimental design; they are *Pre experimental Design*, *True experimental Design*, and *Quasi Experimental Design*. Quasi Experimental Design was chosen in conducting this research. According to Ary et.al, (2010: 316) “Quasi Experimental Design is lack randomization but employ other strategies to provide some control extraneous variables”. There were two reasons in choosing this design. First it was because true experimental could not be conducted because the researcher could not determine the research respondent randomly. The research participants should be homogenous in order to avoid other thread during the

treatment process. Secondly it was because full control could not be provided to the students. We could not neglect that the researcher only giving the treatment during the teaching and learning process.

The pre test was not allowed to be conducted by the headmaster because of the limited time. Therefore Quasi Experimental Posttest Only Design was held in this research. Two groups of students were involved in this research. One group was assigned as the experimental group and the other group as the control group. The following was the illustration of the research design.



Note:

E: Experimental group

C: Control group

X: Treatment (using Quantum Learning model in teaching speaking)

Y₁: Posttest of experimental group

Y₂: posttest of control group

(Ary, et. al., 2010: 305)

The procedure of the research was described as follows:

1. Formulating the research topic.
2. Determining the school where the research will be conducted.
3. Conducting preliminary study by interviewing the English teacher to find out the learning model that had been applied by the teacher in teaching speaking to the eighth grade students at SMPN 11 Jember. Besides the preliminary study was also done by asking students' English score to analyze whether or not the population are homogenous.

4. Analyzing students' English score to identify the homogeneity of the population by means of ANOVA (Analysis of Variance) formula.
5. Based on the result of analysis of variance, the population was homogenous. It meant every class has the same chance to be the research sample. Thus lottery was done in choosing the research sample
6. Determining the experimental and control group by doing lottery. The first lottery will be experimental group and the second lottery will be the control group.
7. Constructing the lesson plans for both classes.
8. Giving treatment to the experimental group by teaching speaking using Quantum Learning model and teaching control group using Communicative Language teaching model.
9. The teaching and learning process was conducted in two meetings for each class. Every meeting took place for 2 x 40 minutes. The third meeting was used to administer the posttest for both classes
10. Designing posttest for experimental and control group.
11. Giving the posttest for both classes.
12. Analyzing the results of the posttest using independent t-test formula through SPSS. The result of this analysis was compared to know whether or not there was a significant effect of using Quantum Learning model on students' speaking achievement.
13. Making a conclusion to answer the research problem.

3.2 Operational Definition of the Terms

Operational definitions described in this subchapter were Quantum Learning model and Students' Speaking Achievement. These operational definitions were provided in order to avoid misunderstanding that might happen between the researcher and the readers.

3.2.1 Quantum Learning Model

Quantum Learning in this research refers to a teaching and learning model used in teaching speaking by designing the teaching and learning process using some principles exist in Quantum Learning model, namely *enroll, experience, learn and label, review and repeat, and celebration*.

3.2.2 Speaking Achievement

Speaking achievement in this research refers to the ability of the students to speak English based on the course objective. It covers pronunciation, fluency, and content. The speaking achievement was presented on the students' speaking test by performing 1 minute dialogue containing expression of giving, accepting or refusing invitation orally in pairs.

3.3 Area Determination Method

Area determination method is a place determination where the research will be conducted. This research used purposive method in which the research area was determined purposively according to the some considerations. The research was conducted at SMPN 11 Jember with these following considerations:

1. Quantum learning model had never been applied at SMPN 11 Jember in teaching English.
2. The headmaster had given permission to the researcher to conduct an experimental research at SMPN 11 Jember.

3.4 Research Respondent Determination Method

Respondent determination method deals with the research subject that is going to be examined. The population of this research was the eighth grade students at SMPN 11 Jember in 2014/2015 academic year. There were 219 eighth grade students that were spread into 6 classes. Since all classes were homogenous the sample was taken using random sampling method. "In random sampling method, every member

of population has an equal and independent chance of being selected for the sample” (McMillan: 71). Two classes were chosen as the experimental group and control group through lottery.

3.5 Data Collection Methods

There were two types of data that will use in this research, primary and secondary or supporting data. The primary data was taken through speaking test that was conducted after the treatment given, while the secondary data was taken through interviewing the English teacher and documentation.

3.5.1.1 Speaking Test

A test is conducted to measure the students’ understanding in particular skill. The test that used in this research was an achievement test. “Achievement test is established to know how successful the students in achieving the indicators of a course” (Hughes, 2003). It was done at the end of the course. Subjective speaking test was constructed by the researcher to measure the students’ speaking achievement in the aspect of pronunciation, fluency, and content of speech. The test was done by performing 1 minute dialogue about giving, accepting or refusing invitation. They worked in pairs and hoped to make a dialogue based on the situation given. There were 38 students in the class. Since this test was in pairs so there will be 19 groups. In the research every group should have the same chance to choose the situation cards so there will be 20 situation cards. These 20 cards will be distributed equally based on the type of invitation. The situation cards could be seen in Appendix G. The following table is the description of the distribution.

Table 3.1 Distribution of Dialogue Situation

	Accepting invitation	Refusing invitation
Formal	Card number: 2, 7, 18, 20, 19	Card number: 1, 4, 6, 10, 13
Informal	Card number: 3, 8, 12, 14, 16	Card number: 5, 9, 11, 15, 17

According to Hughes (2003: 22) a good test should have validity and reliability to provide consistency accurate measurement. In order to measure students' speaking ability accurately, a test has to be valid. This research only focuses on content validity. "A test would have content validity only if it included a proper sample of the relevant structures" (Hughes, 2003). In order to have content validity, the speaking test was constructed based on the material that has been taught and in line with the learning objectives. The material was the expression of giving, accepting or refusing invitation. The students are expected to perform 1 minute dialogue containing the expression of giving, accepting, or refusing invitation orally in pairs. The procedure of administering the test was described as follows:

1. Asked the students to find a group consisting two students in each group
2. Ask the representative of each group to choose the situation card
3. Ask the students to make a dialogue based on the situation they had chosen in 20 minutes
4. After twenty minutes, the researcher collected the students' work and situation card
5. Call the students in pairs randomly in turn.

This research applied inter-rater scoring method. According to Hughes (2003: 42) inter-rater scorers are done by two different scorers. The assessment was done by the researcher and the English teacher. Then the average of both scores was counted as

the final result of the students' speaking score. The speaking test was recorded to avoid the subjectivity of the scorer.

Concerning the scoring method, the researcher used analytical scoring method. Analytical scoring method requires a separate score for each aspect of speaking (Djiwandono, 1996). There were only three aspects that are going to be assessed. They are pronunciation, fluency, and content of speech. It was done because those three aspects were the most important aspects in speaking. Speaking skill for junior high school level does not have much concern on the grammar and vocabulary.

In order to avoid the subjectivity and misunderstanding about the scoring procedure, the researcher gave brief explanation to the second scorer. The criterion in assessing the aspects of speaking was adapted from Hughes' speaking rubric. The criterion was adapted to the students' ability in the level of junior high school. The students' speaking performance was assessed based on this following scoring rubric:

Table 3.2 Scoring Rubric of Speaking Test Adapted from Hughes' Scoring Rubric

1. Pronunciation

Level	Indicators
1	Pronunciation is severe to be understood as the error pronunciation almost in every single word
2	Error pronunciation frequently happen
3	Pronunciation is influenced by mother tongue, and error pronunciation occasionally happen
4	Pronunciation is still influence by mother tongue but only some error pronunciation happen
5	Pronunciation is slightly influenced by mother tongue, but only few error pronunciation happen

2. Fluency

Level	Indicators
1	Speech is severe to be comprehend as it's so halting and incomplete
2	Speech is frequently hesitant. Produce frequent unnatural pauses
3	Speech is occasionally hesitant. Produce occasionally unnatural pauses
4	Speech is quite hesitant with only some unnatural pauses are produced
5	Speech is quite smooth with only few unnatural pauses happen

3. Content of speech

Level	Indicators
1	Content of speech is severe to be comprehend as almost entirely content of speech is incomprehensible
2	Content of speech frequently leads misunderstanding by using frequent inappropriate dictions.
3	Content of speech occasionally leads misunderstanding by using occasionally inappropriate dictions.
4	Some of utterance lead misunderstanding because of some inappropriate dictions happen
5	Only few of utterance lead misunderstanding because of few inappropriate dictions happen

(Adapted from Hughes, 2003: 131-132)

The students' speaking test was assessed using Hughes' rating score which is presented in the following table:

Table 3.3 Scoring Table Based on Hughes' Rating Score

Student	Indicators				Average Score	Final Score $\frac{AV}{Max. Score} \times 100\%$
	P	F	CS	Obtained Score		

Note:

P: Pronunciation

F: Fluency

CS: Content of Speech

3.5.2.1 Interview

The supportive data was conducted to support the primary data. Therefore interview was done to the English teacher. The interview is a form of data collection in which questions are asked orally and the subjects' responses are recorded (McMillan, 1992: 132). Some information regarding with the speaking class were collected. The English teacher was asked about the teaching and learning model that was used in teaching speaking.

3.5.2.2 Documentation

Documentation method was used to support the primary data. In this research the documents that were collected from the English teacher were the number of population and the students' English score.

3.6 Data Analysis Method

The students' posttest score as the primary data was analyzed using independent sample t-test with SPSS (Statistical Package for Social Science).

Independent sample t-test formula was chosen to analyze the primary data because it is a formula that used to analyze the relationship of main data of both classes. Meanwhile the SPSS software was chosen because it provides independent sample t-test formula, besides it is easy to be operated. The significance level of 5% was used to determine whether or not the result was significant. When the result of t-computation was higher than that of the t-table, it meant that null hypothesis (H_0): “there is no significant effect of using Quantum Learning model on the eighth grade students’ speaking achievement at SMPN 11 Jember” was rejected, and the alternative hypothesis (H_a) “there is a significant effect of using Quantum Learning model on the eighth grade students’ speaking achievement at SMPN 11 Jember” was accepted. The procedure of analyzing students’ speaking scores was described as follows:

1. Listen to the recording of students’ speaking test
2. Make students’ speaking transcription
3. Asses each indicator of speaking based scoring rubric
4. Calculate the score based on the scoring table
5. Analyze the mean of score using independent sample t test
6. Make a conclusion