

## CHAPTER II

### LITERATURE REVIEW

These parts describe the theories and the literatures that giving some inspiration to the researcher to do this experimental research. It will give us some information concerning the research. The theories can be used in analyzing the data result of this research.

#### A. QUANTUM TEACHING STRATEGIES

##### 1. Definition of quantum teaching strategies

Quantum Teaching consists of two words "Quantum" and "Teaching". The word of Quantum is borrowed from the physics' world which means the interactions that converts energy into light. Quantum physics, assumes that new properties come out when ordinary existence combine or get in touch. Every Quantum piece has the multiple potential of being elastic about time and ground, and the capacity to effect the world. According Bahaddin, In Quantum, systems show variation, clearness, complexity, mutual causality and uncertainty, reflecting qualitative changings more than quantitative changings<sup>1</sup>.

Quantum teaching it begins from an experiment about *suggestopedia* by Dr.Georgi Lazzanov,a Burgarian Educator.<sup>2</sup> He doing a test about the *suggestopedia* and the effects to learning outcomes based on this theory. The technique was used for giving positive suggestion are: "makes students comfortably, playing music in the classroom, increase students participation, using interesting media to get student's attention, and providing dedicated teachers".<sup>3</sup>

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<sup>1</sup> Bahaddin, Yusuf, "An Investigation the Effect of Quantum Learning Approach on Primary School 7th Grade Students" Science Achievement, Retention and Attitude," (Educational Research Association The International Journal of Research in Teacher Education, 5(2): 11-23 ISSN: 1308-951X, 2014). Pp.20.

<sup>2</sup> Quantum teaching, mengajar yang menyenangkan.  
<https://www.google.co.id/amp/s/chumy2.wordpress.com/2009/01/07/quantum-teaching-mengajar-yang-menyenangkan/amp/> .accessed on November 2017.

<sup>3</sup> Syaefudin. Udin, *Inovasi Pendidikan*. Pp.125

For the next, Quantum teaching developed by Bobby DePoter, he is the main developer of quantum learning.<sup>4</sup> The concept was successfully applied to the Super Camp, the institute of courses built by Porter. A study was conducted for a doctoral dissertation in 1991, involving approximately 6,042 respondents. From that research, Super Camp managed to boost student psychic potential. Among others, increased motivation 80%, the value of learning 73%, increase the self-esteem 84% and continue the use of skills 98%.<sup>5</sup>

Quantum Teaching uses a concept of “*Bawalah Dunia Mereka Ke Dunia Kita Dan Antarkan Dunia Kita Ke Dunia Mereka*” its mean that the first step in teaching is coming to student’s world by build authentic bridge. Learning is full contact activity that using all of the human’s aspect in personality thinking, feeling and body language, beside science, attitude, believe, in the past and also the future perception. So, to make learning proccess become easy has to be given by students and its gotten by the teacher. Quantum Teaching focuses on the dynamic relationship in a classroom environment. This learning model removing the obstacles that deter the natural learning process, for example deliberately to using music, coloring the surrounding environment, compile the appropriate teaching materials, how effective presentation and the involvement of active students. According Gunarhadi, say that Quantum teaching-learning begins with a strong belief foundation that: all people can learn, people learn differently, and learning is effective when it is joyful, engaging, and challenging.<sup>6</sup>

Quantum teaching’s equation is defined as an interaction that might change energy into light. It is based on concept of Quantum Physics,

$$E = mc^2$$

E = Energy (the enthusiasm, the effectiveness in teaching and learning, spirit)

M = mass (all individuals , situation, material, physical)

c = interaction (relationships created in class)

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<sup>4</sup> Hartono,dkk,*Paikem Pembelajaran Aktif Inovatif Kreatif Efektif dan menyenangkan*, Pp.49.

<sup>5</sup> Quantum teaching, mengajar yang menyenangkan. accessed on November 2017.

<sup>6</sup>Gunarhadi, “The Impact of Quantum Teaching Strategy on Student Academic Achievements and Self-Esteem in Inclusive Schools,” Pp.21.

So, the interaction and the learning process will influence to the effectiveness and the student's enthusiasm in learning.<sup>7</sup>

The objective and the priority of Quantum Teaching

Objective is the final result that wants to be gotten by researcher, and the priority is the step to get the objective. The objective of quantum teaching is getting the science based on the learning principals wich are exiting and pleasing.

## **2. The Main Principle of Quantum teaching**

As a strategy, in Quantum teaching also have five principals. Those principals are:

- a. Everything speak, the classroom environment, body language, the design of the lesson and handout influences the success of students in studying.<sup>8</sup>  
The teacher that gives different treatmen between the low ability students and and the hight ability students will influence the student's emotional. It will give effect to the learning proccess and to the class situation (learning climate and students' thinking that created by the teacher).<sup>9</sup>
- b. Everything is on purpose, all of the materials also have purpose and the students have to know it. In Quantum teaching strategy ,it is about AMBAK (*apa manfaatnya bagiku*). By AMBAK, the students' emotional participates in the learning proccess. If the teacher gives infomation to the students about the purpose of the material, it can increase the interest and motivate the students to study harder and more seriously.
- c. Experience before label (giving name), the student's brain grows rapidly because of complex stimulation that will make curious. So, the best learning proccess happend when the students experiencing that infomation before they get the names what they are learning.

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<sup>7</sup> Quantum teaching, mengajar yang menyenangkan. accessed on November 2017.

<sup>8</sup> DePorter. B et.Al., *Quantum Teaching* , Pp.6.

<sup>9</sup> Ibid., Pp.21.

- d. Acknowledge every effort, learning process involves many aspects. Those are to think, to feel and to act.<sup>10</sup> In quantum teaching, appreciation is not only given to the right effort but also to every effort although it is false. Not to say negative words to the wrong efforts will give a motivation to that students to be better.
- e. If something deserves to be studied, it deserves to be celebrated, there are many positive things from learning process although it has risk to fail and etc. So, thanksgiving of the successful of something includes of learning is needed. Quantum teaching Expresses it by celebration. The celebration not only by a party, but it can be a celebration by sharing happiness or giving a prize to another. Celebration will give a feedback about the student's development and increase the positive emotion association in learning. The teacher has to give praise to the appreciate the students in class. It can be applause, saying "hore, hore, hore", conclusion to appreciate another, praise, affirmation and etc.

## **B. STEPS OF QUANTUM TEACHING STRATEGY**

Quantum teaching has a framework known as : Grow, Experience, Naming, Demonstrate, Repeat, and Celebrate.<sup>11</sup> This design is implementing on a regular basis integrated in learning activities, so the learning process become very active, dynamic, and fun with satisfying result. There are the quantum teaching framework:

### **1. Grow**

Grow the student's learning interest with provides students a view that the subject matter delivered will benefit the lives of the students. This stage can be applied in teaching learning process by giving some pictures, motivated videos, or giving statements that related to the topic that will be taught. Here the researcher give the motivated videos to the students.

### **2. Experience**

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<sup>10</sup> Zahara, Eni . *Prinsip-Prinsip Dasar Quantum Learning Dalam Pendidikan Islam*. (Conciencia VII, 2007). Pp.18.

<sup>11</sup> Goman Rumapea, Edi Syahputra, Edy Surya, Application of Quantum Teaching Learning Model to Improve Student Learning Outcomes.

Create or bring common experiences that can be understood by all students. This stage can be applied in teaching learning process by doing some action, telling someone's life or asking their experiences related to the topic given.

### 3. Naming

In presenting the material of learning, the teacher provides keyword, concept models, strategy: an input from the topic that learned. And the aim is to make the students easier to learn the topic. The teacher explain the topic in the stage that aim to make the students easier to learn the topic.

### 4. Demonstrate

Students must demonstrate the material of learning being taught so that students can master the material well. This stage can be applied in teaching learning process by practicing again action based from the student's experience.

### 5. Repeat

Repetition will strengthen nerve connections and sharpen students' memory. In this stage also have function to showing the students to review and affirm, "I know that I really know this." This stage can be applied in teaching and learning process by retelling a keyword or doing exercises related to the topic.

### 6. Celebrate

This stage can be applied in teaching and learning process by giving applause and approval responses, saying "hore, hore" and praising the students.<sup>12</sup>

## C. SPEAKING SKILL

Speaking is the verbal use of language to communicate with others.<sup>13</sup> Teaching speaking is giving instruction to other person in order to communicate. The goal of teaching speaking skills is communicative efficiency. According to Nunan, "the goal of teaching speaking is to develop the student's competence in communication by using English."<sup>14</sup> Brown says that spoken language is easy to perform, but in some cases it is difficult. In order that they can carry out the

<sup>12</sup> DePorter. B et. Al., *Quantum Teaching*, Pp.30.

<sup>13</sup> Fulcher, G. (2003). *Testing Second Language Speaking*, Pp.23.

<sup>14</sup> Nunan, David.. *Designing Task for the Communicative Classroom*. Pp. 13.

successful speaking, they must have some characteristics of successful speaking activity such as:<sup>15</sup>

a. *Students talk a lot when they take part in speaking activity.*

They talk as much as possible of the period of time allocated to the activity of speaking. The students speak a lot in that duration and they comprehend the topic of speaking.

b. *Students have high motivation to join speaking class.*

It can be seen from their behavior to have a great desire to accomplish their speaking task and achieve the task objective.

c. *Language is of an acceptable level.*

Learners express themselves in utterance that are relevant, easy comprehensible to teach other and acceptable level of language accuracy. Means that the students are capable to build good interaction each other in sharing their ideas and information.

#### **D. THE COMPONENTS IN SPEAKING**

Speaking is complex skill because at least it is concerned with component of Grammar, Vocabulary, Pronunciation, Accuracy and Fluency.

##### **1. Grammar**

Grammar is set of language or norm of language and rules must be followed when learn about language rightly. This component is the step of language that fulfills in order to receive. Grammar is description of the structure of language and the way in which unit such as words and phrases are combined to produce sentence in the language.<sup>16</sup>

##### **2. Vocabulary**

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<sup>15</sup> Brown, H. Douglas.. *Teaching By Principles: An Interactive Approach To Language Pedagogy*. (San Francisco: Addison Wesley Longman, Inc, 2001). Pp.270.

<sup>16</sup> David Nunan, *Practical English Language Teaching: Grammar*, (Singapore: McGrawHill, 2005), Pp. 5.

Vocabulary is total number of word in language.<sup>17</sup> Vocabulary means the appropriate diction wich is used in communication. Without vocabulary people can not communicate effectively with other both oral and written.

### 3. Pronunciation

Pronunciation refers to the way a word or language in spoken, or the manner in wich someone utters a word. Pronunciation is the way to talk some word of language.<sup>18</sup> The pronunciation system of language operates with a finite number of significant elements,wich it is learner's first task to distinguish in listerning and speaking. For English, these many conveniently be devided into two categories: the segmental elements (the vowel and consonant sound) and the prosodic elements (accentuation and intonantion).<sup>19</sup>

### 4. Accuracy

Accuracy is the ability to speak properly that is selecting the correct words and expession to convey the intended meaning. Accuracy involves over the linguistic code.<sup>20</sup>

### 5. Fluency

Fluency is the capacity to speak fluidly, confidential an dat rate consistent with the norm of the relevant native speech community.<sup>21</sup> And also fluency is an important dimension of communication. It means that we don't have very ignored quality of speaking, but we have to speak quite and possible.

## E. QUANTUM TEACHING STRATEGY FOR TEACHING SPEAKING SKILL

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<sup>17</sup> Martin H. Manser, *Oxford Learner's Pocked Dictionary*. (New York: Oxford University Press,1996). Pp.462.

<sup>18</sup> Kasihani K.E., Suyanto. *English for young learner* . (Jakarta: Bumi Aksara, 2008). Pp. 8.

<sup>19</sup> A C Gimson (1975). *A Practical Course Of English Pronunciation A Perceptual Approach*. London : Edward Arnold. Pp. 2

<sup>20</sup> Kathleen M. Bailey. *Practical English Language Teaching: Speaking*.(New York: McGraw-Hill ESL/elt, a bussiness unit of the McGraw-Hill Companies,inc.2005) Pp.124.

<sup>21</sup> Ibid., Pp. 5

Strategies is the way which can be used by the teacher in teaching. In teaching speaking skill the teachers should be deliver the materials with interesting strategies, so the students can enjoy and interest to study.

In this study the researcher found articles from several journal about the quantum teaching itself. But, most of the articles are about how quantum teaching and learning can improve students achievement. There are several articles:

1. Ary Yanuarty, A. Soebandi. 2016. "Effort to improve students learning through application of models of Quantum Learning Teaching".<sup>22</sup>

In this journal was identified the improvement of students learning outcomes through the application of learning model Quantum Teaching. In this study was used quasi experimental to analyse the data. And in this study the researcher was design this research with *Nonequivalent Control Group*. In this study the researcher used instrument pre-test and post-test to measure student's ability before and after the learning process. And then the researcher was took the subject of study from 36 students in tenth grade of management office 2 and 36 students in tenth grade of office administration in one of vocational high school in Bandung. And the result from this study is:

In Pre-test on Experimental class the average score is 50,78. It is lowest than in control class, in this class the average score in Pre-test is 53,86. For Post-test the experimental class get higher score, the average score is 84,28. And average score for control class is 77,94. And Based from that information there are have differences between pre-test and post-test. The findings show that the Quantum Teaching learning model is more appropriate for improving students' learning outcomes in the subject of Correspondence with the basic competence of identifying the procedures of writing official letters. Thus, Quantum Teaching learning

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<sup>22</sup> Ary Yanuarty, A. Soebandi. 2016. "Effort to improve students learning through application of models of Quantum Learning Teaching". *Journal of educational management office*. Volume 1, no. 1. Pp. 11-18.



model can be made one of the alternatives for teachers of Correspondence Subject in their efforts of improving students' learning outcomes in this subject.

2. Gunarhadi, Mustapa Kassim & Abdull Sukor Shaari. 2014. "THE IMPACT OF QUANTUM TEACHING STRATEGY ON STUDENT ACADEMIC ACHIEVEMENTS AND SELF-ESTEEM IN INCLUSIVE SCHOOLS".

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In this journal was identified the impact of a teaching strategy called the Quantum Teaching Strategy on students' academic achievements in two school subjects, namely in Bahasa Indonesia and Science, in comparison to that experienced through classes using a conventional teaching strategy. In this research also examined the role of self-esteem on the students' academic achievements in both the subjects in inclusive schools in Indonesia. This research was a quasi-experimental study on two intact groups of sixth graders of two different inclusive schools. The sample was assigned through multi-staged cluster sampling from 78 elementary schools in 15 sub-district areas. The data on student academic achievements was collected by means of tests, while the data on self-esteem were obtained through a questionnaire. The researcher used T-test to analyze the different impacts of the Quantum Teaching Strategy and conventional teaching strategy on the academic achievements of students, while ANCOVA was applied to determine whether the students' self-esteem influenced their academic achievements in Bahasa Indonesia and Science. And the result from this study is:

In Bhs.ind achievement experimental group get mean 8.00 and for control group get mean 7.14. In Science achievement experiment group

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<sup>23</sup> Gunarhadi, Mustapa Kassim & Abdull Sukor Shaari. 2014. "THE IMPACT OF QUANTUM TEACHING STRATEGY ON STUDENT ACADEMIC ACHIEVEMENTS AND SELF-ESTEEM IN INCLUSIVE SCHOOLS". *Malaysian Journal of Learning and Instruction: Vol. 11 Pp. 191-205.*

get mean 7.56, and in control group get mean 6.99. Based from that result showed that the Quantum Teaching Strategy had a better impact on both Bahasa Indonesia and Science achievements as compared to the conventional teaching strategy. Findings of this study can be used as a guide for planning and using Quantum Teaching Strategy in teaching and learning Bahasa Indonesia and Science in inclusive schools.

3. Prof. Amrin Saragih, M.A, Ph.D, Sagita Kristiani, was presented this thesis in a journal with the title : “The Effect Of Quantum Learning On The Students’ Achievement In Writing Argumentation of SMA N 1 DOLOK BATU NANGKAR.

In this research was aimed at finding out the effect of applying Quantum Learning on the Students’ Achievement in Writing Argumentation. The objective of the study was to find out whether the application of writing argumentation. This study used experimental method. The population was the 2010/2011 third year students of SMA N 1 DOLOK BATU NANGKAR, totally 240 students, the sample was 60 students of randomly chosen as the representative of population. They were divided into two groups. The first group (Experimental group) was taught by applying Quantum Learning while the second group (control group) was taught with conventional method. The test was divided into two groups, pre-test and post-test. The instrument used in this study was a writing test. The data were analyzed by using t-test. T-observed was 3.75 and the t-table was 2.000 ( $p=0.05$ ). the result of the analysis shows that the value of the t-table ( $3.75 > 2.000; p=0.05$ ), it could be consulted that Quantum Learning has significant effect on the teaching argumentative writing.

Actually there are many articles, journal, and researches that discuss about Quantum teaching strategy, but researcher took three articles as main reference to doing this Thesis. In this Thesis, the researcher have initiative to change the

subject of some articles by applying quantum teaching strategy in teaching speaking skill. In this thesis also has different subject of research, as we know most of the articles above are took at junior senior high school, but this research the researcher took the subject from Vocational High school of SMK TI Pelita Nusantara Kediri. And based from several literature study above, both of them was explain about to improve, to know the effectiveness and to know the impact of Quantum strategy. And in this research, the researcher interest to analyse the effectiveness of quantum teaching strategy in teaching speaking because this strategy is flexible and has steps that support to teaching English skill.