

## Application of Quantum Teaching Method to Increase Student Motivation in Islamic Religious Education Subjects (Case Study in SMP Plus Bani Adam Hawwa Garut Class VIII)

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### Abstract

The aim of this research are to know how to increase student motivation in learning before and after the application of the quantum teaching method. The method used in this study is a Quasi-Experimental Nonequivalent Control Group Design. The sampling technique in this study is a nonprobability sampling technique using total sampling with class VIII A as the experimental class and VIII B as the control class. Data collection techniques in this study were carried out with 1) interviews, 2) documentation, 3) tests (pre-tests and post-tests), and 4) dissemination of questionnaires. Data collection techniques in the form of pre-tests and post-tests are intended to measure the increase in student learning motivation. The results obtained from this study show that there is a significant influence of the application of learning methods in quantum teaching on increasing learning motivation. This is evidenced by the acquisition of the average post-tests value of the experimental class is 80, while the average value of the control class is 70. The statistical tests result obtained  $T_{count}$  of 2.13 and  $T_{tabel}$  value is 1.99, where the  $T_{count} > T_{tabel}$ , then  $H_a$  is accepted. This means that there are differences and increases in student motivation in learning before and after the application of the quantum teaching method in Islamic religious education subjects.

**Keywords:** Education; Quantum teaching method; Motivation; PAI;

### 1. Introduction

Every human being has been bestowed with the advantage of reason by Allah Almighty. That must be processed to be realized into a complete Kamil person. To cultivate this reason, humans need education to develop the potential and abilities that exist in them. Education aims to prepare students to be able to continue their survival in society (Widya & Mubarak, 2021). Teachers or educators are required to have quality when discussing teaching materials. The quality of teachers can be measured by their morality, policies, patience, and deepening of teaching materials when interacting with students (Rahman & Nasrullah, 2022). Therefore, in the process of educating an educator, of course, learning methods will be needed to help the learning process so that the expected learning goals are achieved. The learning method is a method used by learners to achieve the objectives of learning. The word method is associated with the teaching method, and then in the learning process, there must be a path or method used or taken to achieve predetermined goals (Syukri, 2020: 2).

One of the factors that influence motivation and interest in learning is the learning method (Ridha et al., 2021). Many teachers or educators at this time still apply conventional methods such as the lecture method, where teachers tend to master the class more so that students quickly feel saturated, bored, and even sleepy when learning is included in PAI subjects which tend to be more theory (Roni, 2018).

Islamic religious education is a conscious and planned effort to prepare students to know, understand, live, believe, piety, and practice all Islamic teachings from the most important sources, namely the Quran and hadith, with guidance, teaching, practice, and also experience (Ramayulis, 2018).

According to An-Nahlawi (1996:41), Islamic education is an individual and social arrangement that can cause a person to submit to Islam and be able to apply it in individual life and society. Islamic education is an absolute necessity to be able to carry out Islam as desired by Allah Almighty. (Hilda, 2014).

PAI lessons learned in schools play a very important role in providing understanding to students. After they know and understand the material provided, it is hoped that they will also be able to apply it in everyday life,

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considering the importance of the role of Islamic religious education in life (Hesti, cecep, & Saeful, 2018)

In line with the explanation above, the researcher interviewed one of the PAI teachers at SMP Plus, Bani Adam Hawwa Garut, and reaped the results, namely that the motivation and interest of students in participating in learning were very low, thus affecting student learning outcomes. He revealed that When the teacher delivered the material, there were not a few students who did not pay attention, chatted, or fell asleep, and there were even students who did not enter the classroom so that when the teacher gave questions to several students, they were just silent and unable to answer, this was because the students felt afraid of answering wrong. According to a statement from one PAI Teacher, Few learners follow and pay attention to learning. This is because teachers are not able to manage classes, including using learning methods. Therefore, it is urgent to research to solve problems that often occur in learning, which outlines the strategies or methods used in learning.

The term Quantum is defined as an interaction that converts energy into light. The purpose of "energy into the light" is to change all the obstacles of learning that have been forced to be carried out and become a benefit both for the student himself and for others and the environment around him, which of course, by always maximizing the natural abilities and talents of the student (Rusman, 2018 p. 330) Quantum teaching is a lively learning composing, with all the nuances Anya. And Quantum teaching also includes all the links, interactions, and differences that maximize learning moments. Quantum teaching includes specific instructions for creating an effective learning environment, designing a curriculum, delivering content, and facilitating the learning process (DePorter, 2014, pp. 32-33). The application of this learning method is expected to increase students' interest in learning so that, in the end, all students can improve their learning outcomes and motivation in learning as a whole. Quantum learning or quantum teaching is a set of learning methods and philosophies that are very proven effective to be applied in schools and businesses for all types of people and all ages (Miftahul Huda, 2019, pp. 192-193). Quantum Teaching learning outlines new ways that can facilitate the learning process through the mixing of various elements of art and directed achievements. By using this methodology, educators or teachers will be able to combine and then combine privileges in the implementation of learning towards a form of planning that will increase and increase the level of student achievement (Khotimah, 2019, p. 89).

The principle of Quantum Teaching is based on the concept of "Take Their World To Our World And Deliver Our World To Their World" The concept reminds every educator or teacher of the importance of entering the

student world as a first step. To obtain the right to teach, first of all the teacher must build an authentic bridge to enter the life of the student. Teaching is a right that is achieved, and given by students, learning by all its definitions is an activity called full contact, where learning involves all aspects of a person's personality from thoughts, feelings, and body language, in addition to previous knowledge, attitudes and beliefs and perceptions of the future. Thus, since learning deals with people as a whole, the right to facilitate such learning must be given by the learner and achieved by the educator (DePorter, 2014 pp. 34-35). Teachers are expected to enter the world of learners first because then learners will permit educators to lead, guide, and ease their journey toward greater awareness and knowledge. By always associating what is taught with an event, thought, or feeling acquired from their home, social, athletic, musical, artistic, recreational, or academic. So after the link is formed the educator can bring the student into his world and then give the student an understanding of that world (Khotimah, 2019: 91).

Principles of Quantum Teaching According to Bobbi Deporter (2014: 36-37) To be able to practice Quantum Teaching in classrooms properly and correctly, therefore an educator must know and understand the principles of Quantum Teaching because these principles greatly affect all aspects of Quantum Teaching itself.

*The Quantum Teaching Learning Method* outlines new ways that can facilitate the learning process through the mixing of various elements of art and directed achievements. By using this methodology, educators or teachers will be able to combine and then combine privileges in the implementation of learning towards a form of planning that will increase and increase the level of student achievement (Khotimah, 2019). *Quantum Teaching* includes all the bonds, interactions, and differences that maximize the learning moment. *Quantum Teaching* includes specific indicators to create an effective learning environment, design a curriculum, deliver content, and facilitate the learning process (DePorter, 2014).

From this description, the *Quantum Teaching* method can be one of the solutions for educators to be able to increase student motivation in learning PAI subjects. According to Sardiman's view (2016: 75) in Wahyu and Abdul (2017) that in learning activities, motivation can be interpreted as the overall driving force within students which then causes learning activities, which of course guarantees the continuity of learning activities and gives direction to learning activities so that the goals desired by the learner can be achieved perfectly. Motivation largely determines the degree of success or failure of a student's learning actions. Learning without motivation will be very difficult to achieve goals and success (Kompri, 2020, p. 231).

The Quantum teaching method is effectively used when learning so that it can increase student motivation. Various research results conducted by Ni Luh and Made Sumantri (2020) prove that the use of the Quantum Teaching model based on character education can increase student learning motivation in science learning because Quantum Teaching learning based on character education emphasizes the existence of positive interactions in learning activities. Research conducted by Lismawati, Saeful, Amanda, and Agus (2021) also proved that 1) There is an influence of the Quantum Teaching model on student learning motivation. 2) There is an influence of the *Quantum Teaching* model on student mathematics learning outcomes.

## 2. Method

The method used in this study is an experimental research method. Experimental research methods are research methods carried out by yang experiments used for the influence of independent variables on dependent variables under controlled conditions. (Sugiyono, 2018: 111). The research design used in this study is the *Quasi-Experimental Design* method with *Nonequivalent Control Group Design*. This design is the same as the *Pre-test and Post-test Control Group Design*. ). Meanwhile, the population in this study, namely class VIII A and class VIII B of SMP Plus Bani Adam Hawa Garut, was 79 students. Some sampling techniques in this study are using *nonprobability* sampling techniques with total sampling (census). The total sampling technique is a sampling technique when all members of the population are used as samples. (Sugiyono, 2017: 1 40).

**Table 1.** Research Samples

Class	Category	Gender		Sum
		Man	Woman	
VIII A	Experiment	21	19	40
VIII B	Control	20	19	39

*Source: 2022 data calculation results*

Meanwhile, data collection techniques are carried out including *Ininterviews*Ttests(pre-test & Posttest), Documentation, and Questionnaires (questionnaires).

## 3. Results and Discussion

Based on the results of data analysis, it was seen that there were differences both in terms of understanding and student motivation in learning between the experimental class and the control class. This difference is influenced after the treatment or treatment of the application of the *quantum teaching* method in the experimental class while in the control class, it still uses ordinary or conventional methods.

Before being given treatment or treatment for the application of the *quantum teaching* method in experimental classes and control classes using conventional methods, researchers first provide multiple choice or *pre-test* question tests of 10 questions and the result of data processing is that students' understanding and motivation in learning are relatively the same. But after being given treatment, the application of the *quantum teaching* method in the experimental class went well and experienced an increase compared to the control class that used conventional methods. This can be seen from the average score of the *post-test* results of each class, where the experimental class with the number of 40 students got an average score of 80 and the control class with the number of 39 students got an average score of 70.

**Table 2.** Mean Value and Standard Crossroads

Class (Category)	Postest		
	Number of Students	Average	Standard deviation
VIII A (Experiment)	40	80	11
VIII B (Control)	39	70	12

*Source: 2022 data calculation results*

Based on the results of the calculation and data processing, it was obtained that the distribution of data in the experimental class was declared normal. This is evidenced in testing the normality of the data in the experiment class where the value of  $X^2_{count}$  is obtained, namely 3.09 and  $X^2_{table}$ , which is 11.34 so that the data is declared normal. Then test the normality in the control class and obtain the value of  $X^2_{count}$  which is 2.14 and  $X^2_{table}$  which is 11.34, then the data is declared normal.

**Table 3.** Postest Normality Test Results

Class(category)	Chi-Squared Count( $X^2_{counts}$ )	Chi-Squared Table( $X^2_{tables}$ )	decision
VIII A(Experiment)	3.09	11.34	Usual
VIII B (Control)	2.14	11.34	Usual

*Source: 2022 data calculation results*

After it was known that the results of the data normality test in the experimental class and the control class the results were both declared normal, then the homogeneity test of the two variants was carried out and the calculated F value was 0.92 and the value of table F was 1.71, then the two variants were declared homogeneous.

**Table 4.** Homogeneity Test of Two Postest Variants

Class (Category)	Standard deviation	Variant	F <sub>count</sub>	F <sub>table</sub>
VIII A (Experiment)	11	121	0.92	1.71
VIII B(Control)	12	144		

*Source: 2022 data calculation results*

From the description above, it can be concluded that students' understanding and motivation in learning using the *application of the quantum teaching* method is better than those using conventional learning methods. That way, the hypothesis of research on the application of *quantum teaching* methods to increase student learning motivation in Islamic religious education subjects is accepted or  $H_a$  is accepted. This is evidenced by the results of data processing where the  $t_{\text{calculated}}$  value (-2.13) >  $t_{\text{table}}$  (1.99) means that it is located in the receiving area  $H_a$ . Then the N Gain test was also carried out, where the N gain test was carried out to find out the increase in student learning motivation at the time before and after the Quantum Teaching method was applied in the experimental class and also to find out the increase in student learning motivation in the control class either before or after the non-application of the *Quantum Teaching* method. The results of the N gain calculation show that there is an increase in student learning motivation by applying the *Quantum Teaching* method at the time of learning, which is 0.53 or 53% with the Medium category, this means that the method that the author applied in the experimental class has increased.

To further strengthen the findings carried out, this study was continued by conducting validity tests and Reliability tests on the two variables by distributing questionnaires or questionnaires and obtaining the results of 14 items of variable X statements from questionnaires that were declared valid, then a reliability test will be carried out. From the results of the calculation of the reliability test, it can be decided that the measuring instrument applied variable (X), namely the *quantum teaching* method, is declared realistic because the  $t_{\text{calculated}}$  T value (5,130) > from the  $T_{\text{table}}$  (0.678).

**Table 5.** Variable Reability Results (X) Quantum Teaching Method

<b>RELIABILITY</b>	
Total Variants	24.749
Instrument Variants	13.151
Alpha	0.505
T Count	5.130
T Table	0.678
Decision	<b>Reliable</b>

Source: 2022 data calculation results

and obtained the results of 16 items of variable statement Y from the questionnaire that were declared valid, then a reliability test will be carried out. From the results of the reliability test calculation, it can be decided that the measuring instrument applied variable (Y), namely, student learning motivation, is declared realistic because the  $t_{\text{calculated}}$  T value (3,203) > from the  $T_{\text{table}}$  (1,991)

**Table 6.** Results of Variable Reability (Y) Student Learning Motivation

<b>RELIABILITY</b>	
Total Variants	16.230
Instrument Variants	11.013
Alpha	0.343
T Count	3.203
T Table	1.991
Decision	<b>Reliable</b>

Source: 2022 data calculation results

From the discussion and calculation of the data above, it can be concluded that the *Quantum Teaching* method can be an alternative method of learning. With the application of this method, it has a good influence and results, especially in the subject of Islamic religious education.

#### 4. Conclusion

The results of the study revealed the fact that: 1) The application of the quantum teaching method in Islamic religious education subjects in class VIII of SMP Plus Bani Adam Hawwa showed good criteria. 2) Student learning motivation in Islamic religious education subjects at SMP Plus Bani Adam Hawwa Garut has increased significantly, after the application of the *quantum teaching* method when learning. 3) There is an increase in the learning motivation of students who get the quantum teaching method treatment with those who do not get the quantum teaching method treatment in Islamic religious education subjects at SMP Plus Bani Adam Hawwa Garut. The increase was strengthened by the calculation results of the N Gain test, which was with an average value of 0.53 and was concentrated at 53%. This shows that the methods that researchers apply can increase student motivation in learning.

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