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Model Development of Cooperative Learning in Improving The Quality of Student Learning in Islamic Religious Education Subject

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Abstract

This research is a developmental research which aims to find out the learning model to improve students learning outcomes of islamic learning in MadrasahAliyah Negeri 2 Palembang, South Sumatera. Focus in this study was the subject of jurisprudence. This study offers to reconstruct islamic learning (PAI) iin the school which was originally put on the lecture method into cooperative learning methods. So that students do not feel bored and get better learning outcomes. The modal applied in this study is STAD type. The analytical method used is descriptive qualitative and quantitative analysis. Form pretest analysis, it can be concluded that there is no difference in significance between pre-test cognitive learning outcomes of experimental class students and control class students. Whereas, post-test cognitive learning outcomes of students in the experimental class and control class students obtaint t_{count} = 2.560 (Equal variances assumed). While the value of t_{table} = 2,292, means $t_{count} > t_{table}$ (2,560 > 2,292) the Ho rejected. So, it can be concluded that there are differences between post-test cognitive learning outcomes of experimental class students and control class students.

Keywords*: Cooperative learning, Result, Quality of Learning*

1. Introduction

Learning is a part or element that has a very dominant role to realize the quality of both process and graduate education. Learning has an influence that causes the quality of education to be low. This means that learning depends on the ability of the teacher to implement or package the learning process. According to Muchith (2008, p. 1) learning that is carried out properly and appropriately will contribute to students, whereas learning that is carried out in a way that is not good will make the potential of students difficult to develop.

Quality learning can be seen from the interaction of students with students and students with teachers who foster learning activities. When students are passive or receive from the teacher there is a tendency to quickly forget what is given. Especially with the teacher's mega-style that is monotonous in delivering material, students feel bored, bored, and even run away from the material to be taught. In that case the teacher is required to use various types of models that are appropriate and appropriate to be used in learning.

The development ofmodels *Cooperative Learning* in Islamic learning in the State Madrasah Aliyah (MAN) Palembang students are more eager to learn, because students also actively participate in the learning process, so that students are not bored and able to understand subjects well. Where student study groups consisting of 1-5 people, they work together in a team to solve a problem, complete a task or to do something to achieve other common goals.

According to Rusman (2011 p. 202). In the development of this cooperative model, the teacher acts more as a facilitator which serves as a bridge to a higher understanding with the student's own notes. The teacher not only provides knowledge to students, but also must build knowledge in his mind. Students have the opportunity to gain hands-on experience in applying their ideas, this is an opportunity for students to find and apply their own ideas.

In the cooperative learning process, the success of learning is not solely determined by the ability of individuals as a whole but the acquisition of learning

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will be better if done together in small, well-structured study groups. Thus, success in learning is not solely obtained from teachers who teach but can also be from other parties involved in this learning, namely peers. The problem is: How to develop amodel *cooperative learning*in improving the quality of student learning, how to design or develop Islamic learning models using cooperative learning methods, how the results of the cooperative learing model tests on learning Islamic religion and are there weaknesses or lack of model development results cooperative learning.

2. Method

Type of research used is descriptive where this study aims to describe systematically, factually and accurately about the situation, situation or field of study that is the object of research. The development model in research uses research and development (R & D) (Methods *Research and Development*) (Sugiyono, 2012: 297). Decryptive results can be qualitative (verbal sentences) and quantitative (using numbers) (Amri: 2013).

Procedure The development procedure used in this research is the development of research according to Diem, et al (2001: 1-15), namely five main activities: (1) surveying existing programs, (2) designing or developing programs, (3) piloting programs, (4) evaluating the program, and (5) perfecting the *draft*. Research This research is done by the students in class XI in Palembang State 2 MA. With the reason for the limited time of the study, this study was only in semester 2 (even). While the trial time, the author did in even semester (January to September 2018).

Type of data in this study uses quantitative and qualitative data, namely: Quantitative data in the form of numbers are used to calculate experimental results while qualitative data are data in the form of words, sentences, gestures, facial expressions, charts, pictures and photos (Sugiyono , 2012: 6). The qualitative data in this study is a description of the learning model of Islamic Religious Education. The description of this objective condition includes three aspects, namely the K13 curriculum, the method used, and the teaching and learning process of Islamic Religion in the South Sumatra Madrasah Aliyah.

Collection techniques are the most important step in research, this is done so that the collected data can meet the required data standards. Data collection techniques used in this study are observation, interviews, for primary data. Whereas secondary data is obtained through documentation. So with the above techniques it is expected that the data will be collected in a complete and mutually supportive manner. In detail, the format of the data collection process can be stated as follows.

The experimental design that researchers will do can be described as follows (Sukmadinata 2011, p. 207):

Group	Pre-test	Treatments	Post-test
Experiments	$\mathbf{O_1}$	**X**	$\mathbf{O_2}$
Control	$\mathbf{O_3}$	-	$\mathbf{O_4}$

Table 1. Experimental Design

Description:
X : *Cooperative Learning* STAD type
- : Not given treatment
$O_1 = O_3$: Pre-test
$O_2 = O_4$: Post-test

3. Result and Discussion

3.1 Model Developmentapplied in Islamic Learning in MAN 2 Palembang.

Based on the results of research surveys, needs analysis, theoretical studies, and model design experts applied to Islamic learning, limited trials with revised models, main trials with revisions, experiments on the main / broad trials, which have been done, of the many Which model in Cooperative Learning is more suitable to be applied to religious learning (fiqh) then it will produce learning models and learning strategies that can help and facilitate students learning in the field of religion.

The trial results with revisions were carried out in class XI IIS 1 and IIS 2, aiming to determine the level of application of the model, as well as the constraints encountered in the implementation of the model. By assessing the five aspects of the trial formulated at each stage of the trial, the learning model design is improved and refined.

The results of the trial were assessed on aspects such as the above, namely; (1) the quality of learning delivered by the teacher in the field of study is very good, judging by the students' discipline in working to complete the learning task (2) the implementation of active learning, seen from the learning material and the questions given by the teacher and they can answer from the material. (3) Learning methods delivered by the teacher are good, can be seen when students can solve problems given by the teacher. (4) student's assessment of the design of the learning model is good, it can be seen the level of student achievement when they can answer the questions given by the teacher. (5) evaluation of student learning outcomes is good, judging from the results of the level of assessment that has reached the KKM that has been determined by the teacher of study.

3.2 Designing learning models that are applied to Islamic subjects.

Based on the understanding of learning planning in advance it can be drawn a common thread, that planning learning is as a continuous and comprehensive activity, starting from the preparation of a plan, evaluation of implementation, and results achieved from the goals that have been set. In practice, there are several principles of learning planning that must be considered so that the teaching and learning process in the classroom can be carried out effectively. Where in developing the types of cooperative learning models designing STAD type in Islamic Learning, one of them is learning Jurisprudence. The steps taken are: 1) Submission of goals and motivation.2) Division of groups.3) Presentation from the teacher. 4) Learning activities in the team (team work) .5) Quiz (Evaluation) 6.) Team achievement awards.

3.3. Results Cognitive Test Subjects In Islam (Subjects Jurisprudence)

a) Pre-Test Data Description

Initial test*(Pre-Test)*conducted prior to treatment to see the results of students in possession of material and material contract. Test questions given to students in the form of true-false objective tests as many as 10 questions and in the form ofscales *likert* as many as 10 questions. Score ofscores *pre-test* on cognitive learning outcomes of both experimental class students on material in Marriage in Islam.

1) Mean Score Pre-Test Experiment Class

Score Student Cognitive Learning Outcomes Experimental Class

Based on thescores of *pre-test* the experimental class students cognitive learning outcomes above,analysis was carried out. *descriptive statistics frequencies* to find the average value, standard deviation value, lowest value, highest value and number.

The results of the analysis through *descriptive statistical frequencies* in the SPSS program version 13 showed that thescores *pre-test* of students' cognitive learning outcomes in the experimental class came from 37 respondents, obtained an average value of 64.59, standard deviation (standard deviation) of 8.529 , the lowest score was 45, the highest score was 85, and the number was 2390.

2) Mean Score Pre-Test Control Class Control Class

Score Cognitive Learning Outcomes

Based on thescores *pre-testof* the cognitive learning outcomes of the control class students above,analysis was performed *descriptive statistics frequencies* to find the average value, standard deviation value, lowest value, highest value and number.

The results of the analysis through *descriptive statistical frequencies* in the SPSS version 13 program as contained in the table above, shows that thescore *pre-test* of cognitive learning outcomes of control class students comes from 33 respondents, obtained an average value of 65.00, standard deviation (standard deviation) of 7.289, the lowest value of 50, the highest value of 80, and the amount of 2145.

3) Description of Post-Test Data

Final(*Post-Test*) is carried out after the treatment to see student learning outcomes in the material Understanding in Islam. The test questions given to students in the form of true-false objective tests were 10 questions andscales *Likert* 10. scores *Post-test* of students' cognitive learning outcomes of both the experimental class and the control class material and legal definition of marriage in Islam and the terms and the pillars of the marriage contract.

4) Mean Post-Test Experiment Class

ScoreScore Student Cognitive Learning Outcomes Experiment Class

Based on thescores of *post-test* the experimental class students' cognitive learning outcomes above,analysis was carried out. *descriptive statistics frequencies* to find the average value, standard deviation value, lowest value, highest value and number. The results of the analysis throughtest *descriptive statistical frequencies* on the SPSS version 13 program, that thescores *post-test* of students' cognitive learning outcomes in the experimental class came from 37 respondents, obtained an average value of 72.03, standard deviation (standard deviation) of 9.314 , the lowest value is 50, the highest value is 95, and the number is 2665.

5) Mean Post-TestControl ClassControl Class

Score Cognitive Learning Outcomes

Based on thescore *post-test* of cognitive learning outcomes of the control class students above,analysis is performed *descriptive statistics frequencies* to find the average value, standard deviation value, lowest value, highest value and number. The results of the analysis throughtest *descriptive statistical frequencies* in the SPSS version 13 program, showed that thescore *post-testof* the cognitive learning outcomes of the control class students came from 33 respondents, obtained an average value of 66.52, standard deviation (standard deviation) of 8,614, the lowest value of 50, the highest score of 80, and the amount of 2195.

6) Data Analysis *Pre-Test*

Pre-Test Cognitive Learning Outcomes Students

(a) Normality

Test Normality Test Pre-Test Cognitive Learning Outcomes Students Experiment Class

Datascore *pre-test* cognitive learning outcomes class students the experiment was carried out by normality test using *QQ Plot Test* and Shapiro Wilk table ondata processing program *Statistical Product and Service Solution* (SPSS). The results of the normality *test* of students' cognitive learning outcomes in experimental class can be seen in the following plot (graph).

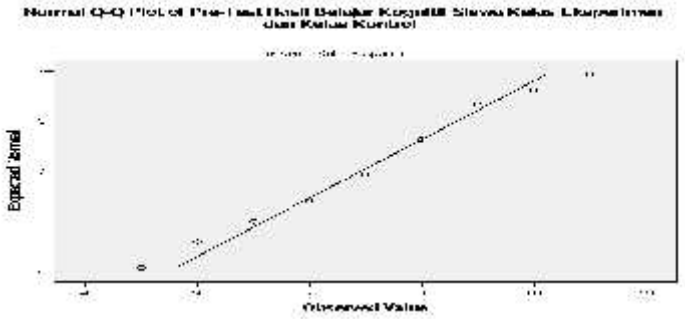

Figure 1. Test for Normality *Pre-Test* Students Cognitive Learning Outcomes Experimental Classes

On the Normal QQ chart theplot of *pre-test* the experimental class students' cognitive learning outcomes above shows that the data spreads close to a straight line or the data is scattered around a straight line. So it can be stated that the data tested is normally distributed.

(b) Pre-Test Normality Test for Control Class Student Cognitive Learning Results

score *Pre-test* of cognitive learning outcomes of control class students was tested for normality using *QQ Plot Test* and Shapiro Wilk tables ondata processing program *Statistical Product and Service Solution* (SPSS). The results of the normality *test* of control class students' cognitive learning outcomes can be seen in the following plot (graph).

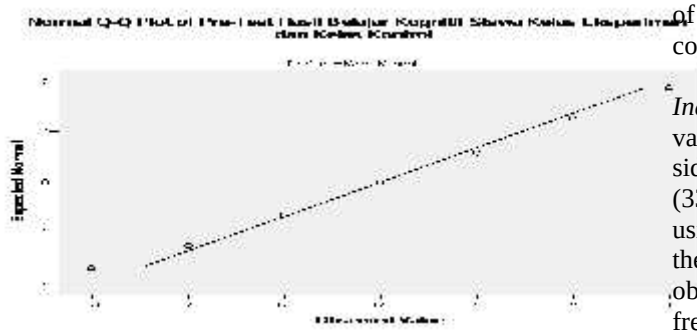

Figure 2. Normality *Pre-Tes for* Students Cognitive Learning ResultsControl Class

(c) Homogenity Test

Homogenitiy test is intended to show that two or more groups of sample data come from populations that have the same variance. The homogeneity test aims to find out whether the data groups studied have the same characteristics. In this study, homogeneity test was carried out with *One Way Anova Homogeneity of Variance Test* (test *Levene Statistic*).

Levene Statistic	df1	df2	Sig.
.361	1	68	.550

Table 2. *Test of Homogeneity of Variances* Pre-Test Cognitive Learning Outcomes for Students Class Experiments andControl Classes

Based on the test results in the homogeneity table above, a significance of 0.550 was obtained. So the Significance value is 0.550> 0.05 then $H_{o\ is}$ accepted. Thus, it can be concluded that the *pre-test* data of students' cognitive learning outcomes of experimental class and control class have the same (homogeneous) variants.

(c) Hypothesis Test

The testing of hypotheses in this study uses the SPSS program. After testing the normality and homogeneity test, hypo-thesis testing is then carried out. Because the *pre-test* data of students' cognitive learning outcomes in the experimental class and the control class were normally distributed and homogeneous, it was analyzed by the t test, namely the *Independent Sample T Test.*

T test for free samples or *Independent Sample T Test is* used to test the average between two independent data groups (Priyatno 2012, p. 75). In principle the purpose of the two sample test is to find out whether the mean average of 1 is greater than the mean average of 2. Where mean 1 is the average score of the experimental class. While mean 2 is the average control class score.

After testing the hypothesis by using the *Independent-Sample T Test*, then consult in the table the value of "t" significance level of 0.05: 2 = 0.025 (2-sided test) with *df* (*Degrees of Freedom*) N_1 (37) + N_2 (33) - 2 = 68. Data interpolation to search for t tables using *Microsoft Excel*, namely *fx* = TINV (0.025, 68) then ENTER. The value of t table for α = 0.05 with *df* 68 obtained t (½ α, 68) = 2,292. The criteria for testing the free sample t test hypothesis (*Independent Samples T*

Test) are as follows: Hypothesis, $H_o : M_1 \leq M_2$, $H_a : M_1 > M_2$, Hypothesis Testing:

H_o : The average of the experimental class is smaller the same with or not greater than the control class average.

H_a : The average experimental class is greater than the control class average.

The results of the hypothesis test *pre-test* output of students' cognitive learning outcomes of experimental class and control class with *Equal variances assumed* obtained t_{count} = - 0.212. While the value of t_{table} for α = 0.05 with *df* 68 is obtained t (½ α, 68) = 2.229, meaning that $-t_{table} < t_{count} < t_{table}$ (-2.229 <- 0.212 <2.292) then $H_{o\ is}$ accepted. So, it can be concluded that there is no difference in average between *pre-test* cognitive learning outcomes of experimental class and control class.

b) Data Analysis *Post-Test*

Data analysis *post-test* was conducted to test the hypothesis (Sugiyono 2008, p. 223). In this case the hypothesis proposed is the application of *cooperative learning* type STAD will have a positive effect on student learning outcomes in the subjects of jurisprudence. What was tested was the difference between the learning outcomes of the experimental class students who were taught by applying themodel *cooperative learning* of the STAD type and the learning outcomes of the control class students who were taught by not applying the *cooperative learning* type STAD model.

Post-Test of Students 'Cognitive Learning Outcomes

1) Normality

Test Thenormality *post-testtest* of students' cognitive learning outcomes includes thenormality *post-testtest* of experimental class students 'cognitive learning outcomes and thenormality *post-testtest* of cognitive class students' learning outcomes.

Test the Normality of Post-Test of Students' Experimental Cognitive Learning Outcomes

score data for *Post-test* cognitive learning outcomes of experimental class students were tested for normality using the *QQ Plot Test* and Shapiro Wilk tables. The results of thenormality *post-testtest of* the cognitive learning outcomes of the experimental class students can be seen in the following plot (graph).

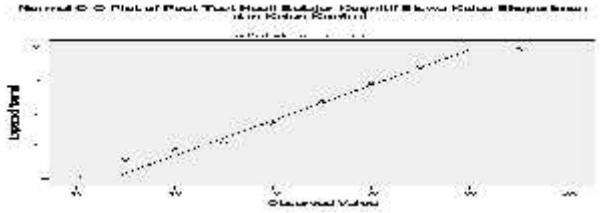

Figure 3. Test of Normality of *Post-Test* Students 'Experimental Cognitive Learning Outcomes

On the Normal QQ chart theplot of *post-test* the experimental class students' cognitive learning outcomes above shows that the data spreads close to a straight line or the data is scattered around a straight line. So it can be stated that the data tested is normally distributed.

Test the Normality of Post-Test of Control Class Cognitive Learning Outcomes of Students

Score data *Post-test* on cognitive learning outcomes of control class students was tested for normality using the *QQ Plot Test* and Shapiro Wilk tables. The results of thenormality *post-testtest* of control class cognitive learning outcomes can be seen in the following plot (graph).

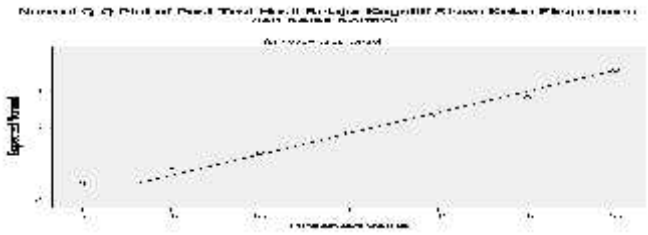

Figure 4. Normality *Post-TestTest of* Control Class Student Cognitive Learning Results

On the Normal QQ chart theplot *post-testof* the cognitive learning outcomes of the control class students above shows that the data spreads close to a straight line or the data is spread around a straight line. So it can be stated that the data tested is normally distributed.

2) Homogenity Test

The results of the analysis of thehomogeneity *post-testtest* of students' cognitive learning outcomes of the experimental class and control class can be seen in the following table.

Levene Statistic	df1	df2	Sig.
.015	1	68	.903

Table 2. Test of Homogeneity of Variances

Post-Test Cognitive Learning Outcomes of Students Class Experiments andControl Classes

Based on the test results in the homogeneity table above, a significance of 0.903 is obtained. So the Significance value is 0.903> 0.05, so $H_{o\ is}$ accepted. Thus, it can be concluded that the *post-test* data of

students' cognitive learning outcomes of experimental class and control class have the same (homogeneous) variants.

3) **Hypothesis Test**

After testing for normality and homogeneity testing, hypo-thesis testing is then carried out. Because the *post-test* data of students' cognitive learning outcomes of experimental class and control class are normally distributed and homogeneous, the hypo-thesis test is analyzed by t-test namely the *Independent-Sample T Test*.

The results of thehypothesis *post-testtest* output of students' cognitive learning outcomes of experimental class and control class with *Equal variances assumed* obtained t_{count} = 2.560. While the value of t_{table} for α = 0.05 with *df* 68 obtained t (½ α, 68) = 2.229, meaning t $_{count}$ > t $_{table}$ (2.560> 2.292) then $H_{o\ is}$ rejected. So, it can be concluded that there are differences in the average between *post-test* cognitive learning outcomes of experimental class and control class.

Different test average Post-Test Results Learning Cognitive Students

After t test using *Independent-Sample T Test* to see *Equal variances assumed*, known value of$_t$ is greater than t_{table} (2.560> 2.292) then H_o rejected and H_a accepted . This means that there is a significant difference between the *post-test* cognitive learning outcomes of the experimental class students taught by applying the *cooperative learning* STAD typemodel and the control class taught by not applying the *cooperative learning* STAD typemodel.

The difference in the averagevalue *post-test* of students' cognitive learning outcomes in the experimental class and theclass *mean difference* was 5.512. These results were obtained from the meanscores *post-test* of students' cognitive learning outcomes of the experimental class of 72.03 minus the average *post-test score* of cognitive learning outcomes of control class students by 66.52. The difference between the averagescores *post-test* of students' cognitive learning outcomes of the experimental class and control class can be seen in the following graph.

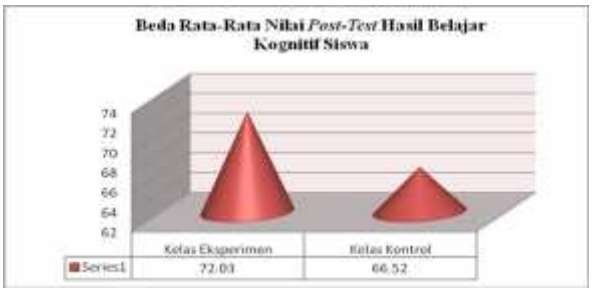

Figure 5. Graphic of cognitive learning outcomes

3.4 Advantages and Weaknesses of cooperative learning in Islamic Learning

a) Excellence

The results of the study can be seen that the advantages of *Cooperative Learning are learning* improve individual and group skills in problem solving, increase commitment and eliminate prejudice against peers, create a climate of active and interactive learning and teaching atmosphere and increase familiarity, have a positive influence in achieving all social academic contests and affective goals, improve students' abilities in recall learning material (reduced rote learning), improve students' ability to find their own subject matter, increase student learning motivation.

b) Weaknesses / shortcomings

From this study can be seen the weaknesses of *cooperative learning learning* originating from two factors: factors from *(internal)* andfactors *external (external)*. Factors from within are as follows: The

1) teacher must prepare learning carefully, besides that it requires more energy, thought and time.
2) In order for the learning process to run smoothly, it needs adequate facilities, tools and costs.
3) During the group discussion activities, there was a tendency for the topic of the issues being discussed to be widespread. So that many do not match the time specified.
4) When class discussions, sometimes dominated by someone, this results in other students being passive.

4. Conclusion

a) The results of the trial with revisions were carried out in class XI IIS 1 and IIS 2, aiming to determine the level of application of the model, as well as the constraints encountered in the application of the model.
b) The model developed is the STAD type in Islamic learning, one of which is Jurisprudence learning. The steps taken are: 1) Submission of goals and

motivation.2) Division of groups.3) Presentation from the teacher. 4) The learning activities in a team (teamwork) .5) Quiz (Evaluation) 6.) Choice team performance.

c) Results of *Pre-test* students' cognitive learning outcomes experimental class and control class obtained by $_{t}$ = -0.212*(Equalvariances*assumed).While the value of t_{table} = 2.229, means that -t_{table} <t_{count} <t_{table} (-2.292 <-0.212 <2.292) then $H_{o\ is}$ accepted. So, it can be concluded that there is no difference in significance between *pre-test* cognitive learning outcomes of experimental class students and control class students.

d) Whereas, *post-test* cognitive learning outcomes of students in the experimental class and control class students obtained t_{count} = 2.560 (*Equal variances assumed*). While the value of t_{table} = 2,292, means t $_{count}$ > t $_{table}$ (2,560> 2,292) then $H_{o\ is}$ rejected. So, it can be concluded that there are differences between *post-test* cognitive learning outcomes of experimental class students and control class students. The difference in the average *post-test score of* the cognitive learning outcomes of the experimental class students and control class students is 5,512. Thus, students' cognitive learning outcomes that use the *Cooperative Learning* type STAD model are greater than the cognitive learning outcomes of students who do not use the *Cooperative Learning* STAD typemodel on Fiqh subjects.

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