

## THE EFFECTIVENESS OF MIND MAPPING LEARNING METHODS TO IMPROVING STUDENT LEARNING OUTCOMES IN LEARNING AL-QUR'AN HADITH

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**Abstract.** The learning method is a technique used by educators to students in carrying out learning in order to achieve learning objectives. Therefore, educators need to choose appropriate learning methods. This study aims: 1) To determine the implementation of the mind mapping method in learning Al-Qur'an Hadith, 2) To determine the effectiveness of the mind mapping method in learning Al-Qur'an Hadith, 3) To determine the supporting and inhibiting factors of the mind mapping method in learning Al-Qur'an Hadith. This research is quantitative research. The data were obtained from the results of observations, documentation and learning outcomes tests. Before testing the hypothesis, the validity and reliability tests were carried out as a prerequisite test. For the normality test, the Kolmogorov Smirnov test was used, and the results were that the data were not normally distributed, therefore, the homogeneity test was not carried out. The data analysis technique for hypothesis testing uses the Wilcoxon Rank Sum Test, all of which are calculated using SPSS version 26.0. The results showed (1) the learning process using the mind mapping method showed a positive response from students, (2) there was a significant difference in student learning outcomes between the experimental class and the control class, it can be seen from the average post-test result of the control class of 58, 2 and the experimental class average is 80, (3) The use of mind mapping learning methods is quite effective in improving student learning outcomes in the Al-Qur'an Hadith subjects which is supported by the results of the Wilcoxon Rank Sum Test significance value of 0.000 which is smaller than 0.05 which means  $H_0$  is rejected.

**Keywords.** Effectiveness of Learning; Mind Mapping Method; Learning Outcomes

### A. INTRODUCTION

Education is an activity undertaken to change human behaviour. Education plays an important role in the progress of a country. Therefore, education has a big role and becomes the initial foundation for giving birth to the next generation of the nation. The most important thing in education is the learning process. Learning is a process of creating a supportive atmosphere in order to create reciprocity and teaching and learning communication between teachers, students and other learning elements in order to achieve learning objectives (Rusman, 2011).

In the educational process, one aspect that has a major effect on delivering student success is the teacher as an educator. Teachers should always try to provide direction and motivate students' enthusiasm for learning, arrange learning activities as well as possible and become a forum for information needed by students both in terms of "insight, skills and attitude" or behaviour (Rivero et al. 2011; Ramayulis, 2005). With their knowledge, teachers guide students in developing their competencies (Fathurrohman, 2009)(Hughes and Mukarutwaza 2020).

Efforts to improve quality in management, improving the quality of educators in Indonesia never stop and various breakthroughs have been made by the Government. In an effort to improve student learning achievement, a teacher is required to master several things including mastery of the material, mastery of the class, self-control and others (Sadikin A, 2018)

In addition to the teacher aspect, the learning atmosphere also has a major influence in improving the quality of learning. Fun learning will create interactive learning and increase students' motivation and interest in learning. So, this is where the learning method has an important role in the presentation of the subject matter.

The learning method is a stage that is used when educators interact with students in order to achieve learning goals that have been determined based on the material and procedures of learning methods (Muhammad Efendi, 2013). Sutikno also explained that the learning method is a technique used by educators to convey subject matter so that the learning process occurs in students as an effort to achieve learning objectives (Sutikno, 2008).

Experience proves that one of the causes of failure in teaching is the setting of inappropriate methods, low student enthusiasm and lack of creativity of students due to the lack of conformity with the method with learning objectives (Zain, 2010). Regarding Islamic Religious Education, especially the Al-Qur'an Hadith, there is a lot of material in it which is structured and requires a lot of memorizations.

According to observations that have been made at MAN 1 Blitar regarding the obstacles experienced when teaching Al-Qur'an Hadith in class X at MAN 1 Blitar, many students' understandings are not in accordance with the theme in KD. Perhaps one of the reasons is also because the lessons of the Qur'an Hadith "are often placed in the last hours where the children have experienced boredom since morning. So that students can understand the material thoroughly and easily remember it requires an appropriate learning method.

Therefore, educators need to choose suitable learning methods, the mind mapping method is one of them. Mind mapping or commonly referred to as a mind map is a learning model that helps remember material or reading, improve understanding and help organize material. Mind maps are the easiest way to put things in your brain and get them out of your brain when needed, mind mapping is a method of writing that is effective, creative and will literally "map" our minds. Mind mapping is also very simple (Buzan, 2006). Mind Mapping can also increase students' learning desires (Ratnanin, 2019).

Doni Swadarma said in his book "The Application of Mind Mapping in the Learning Curriculum" there are several benefits of mind mapping when applied in learning, including (Swadarma, 2013):

1. Make it easier to repeat or review an idea
2. Can know the outline of a thought, making it easier for the brain to absorb the results of the thought
3. Materials that are initially complicated and long can be simplified to make it easier

Based on the background that has been described, there are at least three questions posed in this study. First, how is the implementation of the mind mapping method in learning Al-Qur'an Hadith for class X at MAN 1 Blitar. Second, how is the effectiveness of the mind mapping method in learning Al-Qur'an Hadith in class X at MAN 1 Blitar. Third, what are the supporting and inhibiting factors for the mind mapping method in learning Al-Qur'an Hadith Class X at MAN 1 Blitar. Meanwhile, the objectives of this study are: First, to find out the implementation of the mind mapping method in learning Al-Qur'an Hadith in class X at MAN 1 Blitar. Second, to find out the effectiveness of the mind mapping method in learning Al-Qur'an Hadith for class X at MAN 1 Blitar. Third, to find out the supporting and inhibiting factors of the mind mapping method in learning Al-Qur'an Hadith for class X at MAN 1 Blitar.

## **B. METHODS**

This research focuses on the effectiveness of the mind mapping method in the Al-Qur'an Hadith class to improve student learning outcomes. This research is classified in quantitative research. Quantitative research is researching whose analysis focuses on numerical data (numbers) that are processed through statistical methods (Mahmud, 2011). This study uses a true experimental design in the form of a pretest-posttest control group design, where a pre-test is carried out before being given treatment and then a post-test is given afterwards to find out whether there are differences in learning outcomes using or not using treatment.

The population in this study is class X science and social studies at MAN 1 Blitar, with a large sample, it is impossible for researchers to observe the entire population, therefore researchers can take advantage of samples taken from that population. The sampling technique used in this study is simple random sampling which is included in the probability sampling technique. This sampling technique is the simplest. Sampling from the population was carried out randomly without observing the existing strata in the population (Sugiyono, Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif dan R&D, 2009).

This research was carried out with two variables, namely the effectiveness of the mind mapping learning method as the independent variable (X) and student learning outcomes in the subjects of Al-Qur'an Hadith class X as the dependent variable (Y). Data collection techniques used in this study were observation, documentation and learning outcomes tests in the form of pre-test and post-test. Furthermore, validity and reliability tests were conducted to determine whether the research instrument used was valid and reliable or not.

The data analysis technique used in this study was the Wilcoxon Runk Sum Test non-parametric statistical test because the data obtained were not normally distributed after the normality test was performed. Because the data obtained are not normally distributed, it is not absolutely necessary to do a homogeneity test, all of which are calculated using the 26.00 version of SPSS.

### C. RESULT & DISCUSSION

To find out whether there is an influence or effectiveness from the application of the mind mapping learning method and those who do not apply the mind mapping learning method to student learning outcomes in the subjects of Al-Qur'an Hadith class X at MAN 1 Blitar, the pattern to be compared can be observed as follows:

$$\frac{\text{Experiment Class}}{\text{Control Class}} = \frac{\text{Pre Test} \rightarrow \text{Treatment} \rightarrow \text{Post Test}}{\text{Pre Test} \rightarrow \text{No Treatment} \rightarrow \text{Post Test}}$$

The learning procedure in the control class includes the implementation of the pre-test, the teacher's explanation or the provision of material, discussion, assignment, post-test implementation and awarding. The learning procedures in the experimental class were the implementation of pre-test, giving material by the teacher, giving directions or demos of making mind mapping, working on mind mapping, presenting using mind mapping, implementing post-tests and giving awards.

Before the research instrument is given to students, it is necessary to test its validity and reliability first. Of the 15 items that were tested for validity, there were 5 items that were not valid because the results of the *r*-count were less than the *r*-table. So the items were not used or dropped, so only 10 questions were valid in this study.

Furthermore, research instruments that have been tested for validity will be tested for reliability. An instrument can be said to be reliable if the instrument is consistent in its measurement results so that it can be trusted (Sundayana, 2014). A reliable instrument is an instrument that gives the same results even though it is tested many times to measure the same object. The calculation uses the Alpha-Cronbarch formula, and after the calculation, it is found that the calculation results are 0.801 which according to the instrument reliability criteria of Guilford's opinion these questions have a relatively high level of reliability (Haris, 2012).

The results of the comparison of learning between the experimental class and the control class can be seen in the table as follows:

Information	Control Class		Experiment Class	
	<i>Pre-Test</i>	<i>Post-Test</i>	<i>Pre-Test</i>	<i>Post-Test</i>
Mean	58,61	58,33	60	82,05
The highest score	80	80	70	100

Lowest score	20	30	30	70
Median	60	60	60	80
Modus	70	60	60	80
Total students	36	36	34	34

Table .1  
Comparison of Study Results

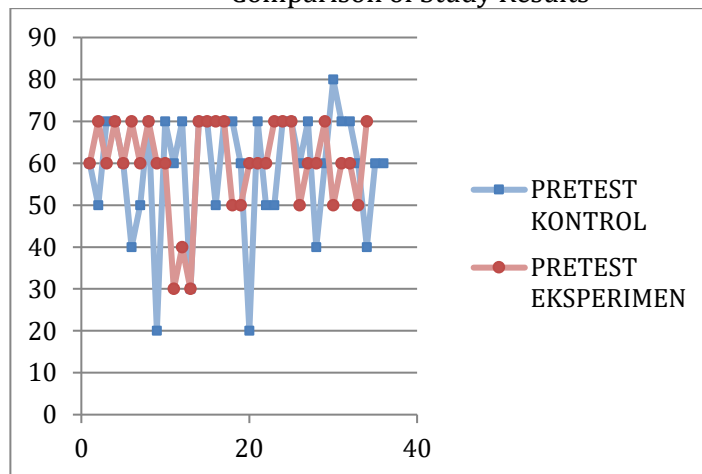


Figure 1.1

Graph of Pre-Test Results of Control Class and Experiment Class

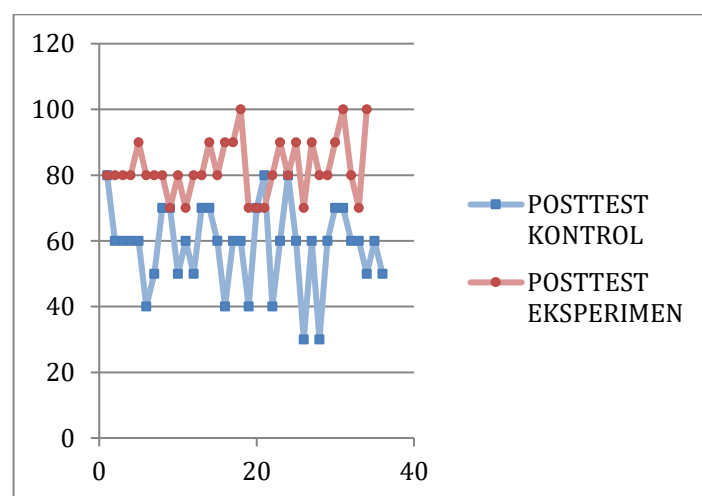


Figure 1.2

Graph of the Development of Post-Test Results for Control Class and Experiment Class

From the tables and graphs, it can be seen that the pre-test results between the control class and the experimental class showed a relatively similar average of 58.61 for the control class and 60 for the experimental class. Then, it can be concluded from the table and graph of the results of the post-test development above if there is an increase in the experimental class after the treatment or treatment in the form of a mind mapping learning method as evidenced by an average score of 80. Meanwhile, the control class using the conventional method of post-test results. The -test is relatively the same as the results of the previous pre-test. That is, the average shows a value of 58.33.

To find out whether the pre-test and post-test value data obtained from the experimental class and control class students were normally distributed or not (Nuryadi, 2017), a normality

test was carried out. This normality test uses the Kolmogorov Smirnov test because the data to be tested for normality is > 100 data using the SPSS 26.00 program, the decision-making guideline for the Kolmogorov Smirnov test is if the probability value is < 0.05 then the distribution is not normal and if the probability value is > 0.05 then normal distribution (Sugiyono, Statistika Untuk Penelitian, 2012). The results of the calculation of the normality test that have been carried out are presented in the following table:

Data	Kolmogorov Smirnov Statistic	P	Information
Pre-Test Experiment	0.265	0.000	P < 0,05 = Abnormal
Post-Test Experiment	0.269	0.000	P < 0,05 = Abnormal
Pre-Test Control	0.232	0.000	P < 0,05 = Abnormal
Post-Test Control	0.246	0.000	P < 0,05 = Abnormal

Table. 2  
Normality Test Calculation Results

From the table presented above, it shows that the four data obtained are not normally distributed because the results of the calculation of the normality test that have been carried out show that the probability value is < 0.05. Therefore, it can be concluded that the distribution of data in the control class and the experimental class is not normally distributed.

Because the data obtained are not normally distributed, it is not necessary to do a homogeneity test. Meanwhile, hypothesis testing is done by non-parametric statistical tests. On this occasion, the researcher used the non-parametric Wilcoxon Rank Sum Test. The basis for decision making on the Wilcoxon Rank Sum Test is that if the significance value is > 0.05, then H0 is accepted and if the significance value is <0.05, then H0 is rejected. The hypotheses in this study are:

H0: There is no significant effectiveness and role in students' learning outcomes of Al-Qur'an Hadith by applying mind mapping learning methods.

H1: There is an effectiveness and a significant role in students' learning outcomes of Al-Qur'an Hadith by applying mind mapping learning methods.

The results of the calculation of the hypothesis test using the Wilcoxon Rank Sum Test were calculated using SPSS version 26.00, namely as follows:

Test Statistics <sup>a</sup>	
	POSTEST - PRETEST
Z	-5.156b
Asymp. Sig. (2-tailed)	.000

Table. 3  
Hypothesis Test Calculation Results

Based on the calculation table above, it shows that the Asymp column. Sig. (2-tailed) is 0.000 which means 0.000 <0.05, which means H0 is rejected. This shows that there is an effectiveness and a significant role in students' learning outcomes of the Qur'an Hadith by applying the mind mapping learning method.

With the implementation of learning Al-Qur'an Hadith with the mind mapping learning method, it is inseparable from the supporting factors and inhibiting factors in its implementation. The following describes the factors that support the implementation of mind mapping learning methods in learning Al-Qur'an Hadith class X at MAN 1 Blitar first, the factors of subject teachers who support the implementation of learning using the mind mapping method so that maximum results can be obtained. Second, the factor of students who show enthusiasm and enthusiasm in doing mind mapping, then when presenting the students look enthusiastic, active and pay attention to their classmates conveying the subject matter that has been prepared in the form of mind

mapping and the implementation of this method supports the creation of an active class because all students involved in its manufacture and manufacture.

However, the implementation of the mind mapping learning method cannot be separated from the factors that hinder its implementation, including some students from each group who are seen doing their own activities such as playing cell phones, sleeping or busy themselves when their group friends are busy working on mind mapping. Then, there is one group that does not bring supporting equipment such as colour markers or other supporting equipment, causing mind mapping to look less attractive. As far as this research was carried out, these were the supporting and inhibiting factors observed by the researcher.

#### D. CONCLUSION

Based on the results of research and discussion related to the Effectiveness of Mind Mapping Learning Methods in Improving Student Learning Outcomes in Learning Al-Qur'an Hadith Class X at MAN 1 Blitar, it can be concluded that there are significant differences in learning outcomes between the control class using conventional methods and the experimental class using the mind mapping method. This is evidenced by the average post-test value of the control class of 58.33 while the average value of the experimental class is 82.05. And supported by the results of non-parametric statistical calculations Wilcoxon Rank Sum Test with a significance value of 0.000 which is significantly smaller than 0.05 so that with a significance level of 5% so that the results of the decision are  $H_0$  rejected and  $H_1$  accepted.

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