P-ISSN: 2808-0467
E-ISSN: 2808-5051
Homepage: https://iss.internationaljournallabs.com/index.php/iss

# WHITEBOARD ANIMATION IN FIQH LEARNING ON STUDENTS OF MI MUTIARA BUNDA'S STUDENTS

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***PAPER INFO***

***Received:*** *May 2022*
***Revised:*** *May 2022*
***Approved:*** *May 2022*

***ABSTRACT***

**Background:** To support the success of education in schools, technology, methods, strategies, media are needed in learning in the classroom so that students can quickly understand and be motivated in learning but the reality in the field is different

**Aim:** This study aims to apply whiteboard animation learning media to measure students' critical thinking in Fiqih lessons.

**Method:** The research method used is quantitative field experiments. The subjects of this study were students at MI Mutiara Bunda Surabaya, 20 samples were taken consisting of 10 students in the control class and 10 students in the experimental class.

**Findings:** The four stages of trials that have been carried out, include: First, a questionnaire test with $t_{count} > t_{table}$ (11,831 > 2,262) for the control class and (33,541 > 2,262). Significance 0.000, since the significance of < 0.05 then Ho was rejected and Ha was accepted. Second, an oral test with $t_{count}$ greater than $t_{table}$ (6,497 > 2,262), then Ho was rejected and Ha was accepted. The three questionnaire tests with a score of $t_{count} > t_{table}$ (148,500 > 2,262) then Ho was rejected and Ha was accepted. The four reliability and validity tests with Cronbach's alpha score of 0.768 > 0.60, then as the basis for decision making in the reliability test above. The conclusion is that the learning medium of whiteboard animation is very well used against students' critical thinking in Fiqh subjects.

***KEYWORDS*** *whiteboard animation, Fiqh, critical thinking*

## INTRODUCTION

In modern times today the world has entered the era of the industrial revolution 4.0 or the fourth world industrial revolution where technology is the basis in human life (Prasetyo & Trisyanti, 2018). In addition, it is undeniable that rapid developments in the field of technology occur in various countries including Indonesia (Surahman, 2016). In this industrial era 4.0 also all the necessary data is inputted on a digital system so that all can access it without the need to find people who are experts in technology (Rahmadani, 2020). The result of the development of the internet and digital technology today is that everything becomes limitless (Aspi & Syahrani, 2022). While the positive side is that technology is driving the economy with a lot of trade through the internet today (Prastyaningtyas, 2019). In this aspect of life, technology influences a lot in various fields including economics, politics, culture, art, and even to the world of education (Christian, 2020; Fikri, 2019; Ngafifi, 2014).

To support the success of education in schools, technology, methods, strategies, media are needed in learning in the classroom so that students can quickly understand and be motivated in learning but the reality in the field is different (Suryadi, 2007). It can be influenced by various factors including learning motivation, learning outcomes, study habits, socioeconomic

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conditions, academic guidance, learning media, connections, critical thinking, creativity, independence in learning, and learning methods (Zubaidah, 2016).

The purpose of this study is to find out how the use of White Board Animation learning media in Fiqh subjects at MI Mutiara Bunda Surabaya, how students think critically after participating in Fiqh learning at MI Mutiara Bunda Surabaya, and how the influence of the use of White Board Animation in Fiqh learning on the critical thinking of MI Mutiara Bunda Surabaya students.

## METHOD

This type of research is quantitative research. In this study, researchers used an experimental approach. Where experimental research can be interpreted as a systematic method to build relationships that contain causal-effect relationships (Sukardi, 2021).

Experimental research is divided into two, namely laboratory experiments (research in the laboratory) and field experiments (experimental research in the field) (Sukardi, 2021). In this study, researchers used quasi-experiments. There are several procedures in conducting experiments as follows:

1) Stages of choosing an experimental group: In this study, the researcher chose two groups in the study, namely the control group and the experimental group. This research was conducted at MI Mutiara Bunda Surabaya in class VI which has one class consisting of 37 students and students. Tetfire researchers took 20 students alone. So, researchers formed a control group of 10 male students and an experimental group of 10 female students;
2) Stages of treatment
    a) The first stage, Pre Experiment Measurenment: At this stage the control group and the experimental group are given a Pre Test;
    b) The second stage, Treatment: At this stage in the experimental group using the White Board Animation learning media while in the control group using the lecture method. In this study, the treatment was carried out four times, namely twice in the control group and twice in the experimental group. Each treatment is carried out within 2 x 30 minutes;
    c) The third stage, Post Experiment Measurement: At this stage the researcher gave post test questions in the control group and the experimental group. The form of the post test questions is the same as the pre-test. The results are in the form of data on students' final abilities which are used to determine the influence caused by giving treatment.
3) Stages of testing validity: Table the score calculation, analyze, pass all items of variable X into variable Y, and check Pearson list.

## RESULTS AND DISCUSSION

### The Answer to the Formulation of the First Problem

In the stage of observing the teaching and learning process of students online. Researchers observed Fiqh teachers when teaching online. In the learning activities, the teacher gives assignments to students via Whatsapp in the form of photos then students deposit the results of doing it are photographed and then sent through the Whatsapp group sometimes the teacher

explains through a video on Whatsapp. The obstacle of online learning is that students find it difficult to understand the teacher's exposure and the learning is less interesting.

The interview stage where the researcher asks the source about something to be studied. Then researchers also use library research to strengthen facts and to compare differences or similarities between theory and practice related to the influence of White Board Animation learning media on students' critical thinking.

**The Answer to the Second Problem Formulation**

Questionnaires are used when pre-test which is a test given to students before learning. In this pretest the researcher used an open questionnaire. The questions below are those contained in the pre-test in writing through the Google Form to students. The results of the Pre test are as follows:

***Control Class***

**Table 1.** Control Class Pre Test Results

| NO. | NAME | QUESTIONNAIRE | | | | | SUM | VALUE |
|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | | |
| 1 | Achmad Zainal Rosul | 3 | 3 | 2 | 3 | 2 | 13 | 52 |
| 2 | Angry Dimastha Syawallon | 2 | 2 | 3 | 3 | 3 | 13 | 52 |
| 3 | Hanikram Barka Illaha | 2 | 3 | 3 | 2 | 2 | 12 | 48 |
| 4 | Herno Adi Sanjaya | 2 | 3 | 2 | 1 | 1 | 9 | 36 |
| 5 | Lutfi Ardianyah Primary | 1 | 1 | 1 | 2 | 1 | 6 | 24 |
| 6 | Mochamad Saddam Azhari | 1 | 1 | 1 | 2 | 2 | 7 | 28 |
| 7 | Muchammad Muhlis | 3 | 3 | 2 | 2 | 1 | 11 | 44 |
| 8 | Muhammad Alfin | 3 | 3 | 3 | 2 | 2 | 13 | 52 |
| 9 | Nuzulur Rayhan Agta Saputra | 3 | 3 | 3 | 3 | 2 | 14 | 56 |
| 10 | Rosul Abidin | 3 | 3 | 3 | 3 | 3 | 15 | 60 |
| **Sum** | | 23 | 25 | 23 | 23 | 19 | 113 | 226 |
| **Average** | | | | | | | 11.3 | 45.2 |

Shoes:

5 = Very correct answer4 = Correct answer

3 = Less correct answer2 = Wrong answer

1 = Answer not filled in

From the above data using the formula:

$$N = \frac{\text{Score of Achievement}}{\text{Maximum Score}} \times 100$$

- Achievement score = number of
- Maximum score = 5 x 5 (number of questions) = 25

It is known that the question numberor 5 is the lowest score among others meaning that in question number 5 it is the most difficult for students to answer the question. While question number 2 has a higher score among others, it means that question number 2 is the easiest for

students to answer. For the average on the *Pre test* in the control class, the score is 45.2 which is still less than the average in the class. The average in a good class should be above 59.

***Experimental Class***

**Table 2.** Experimental Class Pre Test Results

| NO. | NAME | QUESTIONNAIRE | | | | | SUM | SCORE |
|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | | |
| 1 | Amira Sari Dewi | 3 | 3 | 2 | 3 | 1 | 12 | 48 |
| 2 | Azra | 3 | 3 | 3 | 1 | 1 | 11 | 44 |
| 3 | Cantika | 3 | 2 | 3 | 3 | 1 | 12 | 48 |
| 4 | Dela Puspita Aurelia | 2 | 3 | 3 | 4 | 1 | 13 | 52 |
| 5 | Goddess Ratna Anjani | 3 | 3 | 3 | 3 | 3 | 15 | 60 |
| 6 | Fardania Nur Kholifah | 4 | 4 | 2 | 1 | 1 | 12 | 48 |
| 7 | Beautiful Sofiatul Laili | 3 | 3 | 2 | 1 | 2 | 11 | 44 |
| 8 | Mei Dina Rahayu Ainur Rokhman | 1 | 3 | 4 | 3 | 2 | 13 | 52 |
| 9 | Siti Asyifa | 2 | 3 | 3 | 4 | 1 | 13 | 52 |
| 10 | Zainia | 3 | 3 | 3 | 2 | 2 | 13 | 52 |
| **Sum** | | 27 | 30 | 28 | 25 | 15 | 125 | 500 |
| **Average** | | | | | | | 12.5 | 50 |

It is known that the question numberor 5 is the lowest score among others meaning that in question number 5 it is the most difficult for students to answer the question. While question number 2 has a higher score among others, it means that question number 2 is the easiest for students to answer. For the average on the pre test in the experimental class, the score is 50 which is still less than the average in the class. The average in a good class should be above 59.

**The Answer to the Third Formulation of the Problem**

This oral test is used when the post test is a question given after the material is delivered or it can also be interpreted as a final evaluation when the material on that day has been given. The results of the pre-test and post test after comparison will be known the extent of the influence of the teaching that has been carried out and it can also be known the extent to which the parts of the teaching material are still incomprehensible to students. The questions below are those contained in the test post orally via Google Form to students.

***Control Class***

**Table 3.** Control Class Post Test Results

| NO. | NAME | ORAL TEST | | | | | SUM | SCORE |
|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | | |
| 1 | Achmad Zainal Rosul | 3 | 4 | 3 | 2 | 2 | 14 | 56 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2 | Angry Dimastha Syawallon | 2 | 3 | 2 | 3 | 3 | 13 | 52 |
| 3 | Hanikram Barka Illaha | 2 | 3 | 2 | 4 | 3 | 14 | 56 |
| 4 | Herno Adi Sanjaya | 2 | 3 | 2 | 4 | 2 | 13 | 52 |
| 5 | Lutfi Ardianyah Primary | 4 | 3 | 3 | 4 | 3 | 17 | 68 |
| 6 | Mochamad Saddam Azhari | 4 | 3 | 3 | 3 | 4 | 17 | 68 |
| 7 | Muchammad Muhlis | 3 | 3 | 3 | 2 | 4 | 15 | 60 |
| 8 | Muhammad Alfin | 3 | 3 | 3 | 2 | 3 | 14 | 56 |
| 9 | Nuzulur Rayhan Agta Saputra | 4 | 3 | 4 | 3 | 4 | 18 | 72 |
| 10 | Rosul Abidin | 3 | 3 | 3 | 4 | 3 | 16 | 64 |
| **Sum** | | 30 | 31 | 28 | 31 | 31 | 151 | 604 |
| **Average** | | | | | | | 15.1 | 60.4 |

It is known that question number 3 is the lowest score among others, meaning that in question number 3 it is the most difficult for students to answer questions. While questions number 2, 4 and 5 have higher scores among others, which means that questions number 2, 4 and 5 are the easiest for students to answer. For the average *post test* in the control class, the score is 60.4 which is above the average in the class. The average in a good class should be above 59.

***Experimental Class***

**Table 4.** Experimental Class Post Test Results

| NO. | NAME | ORAL TEST | | | | | SUM | SCORE |
|---|---|---|---|---|---|---|---|---|
| | | **1** | **2** | **3** | **4** | **5** | | |
| 1 | Amira Sari Dewi | 4 | 4 | 3 | 3 | 5 | 19 | 76 |
| 2 | Azra | 4 | 4 | 3 | 5 | 5 | 21 | 84 |
| 3 | Cantika | 3 | 4 | 5 | 3 | 5 | 20 | 80 |
| 4 | Dela Puspita Aurelia | 4 | 5 | 5 | 5 | 4 | 23 | 92 |
| 5 | Goddess Ratna Anjani | 4 | 3 | 5 | 4 | 5 | 21 | 84 |
| 6 | Fardania Nur Kholifah | 4 | 4 | 5 | 5 | 5 | 23 | 92 |
| 7 | Beautiful Sofiatul Laili | 5 | 5 | 4 | 4 | 4 | 22 | 88 |
| 8 | Mei Dina Rahayu Ainur Rokhman | 5 | 3 | 4 | 3 | 4 | 19 | 76 |
| 9 | Siti Asyifa | 3 | 3 | 3 | 4 | 5 | 18 | 72 |
| 10 | Zainia | 4 | 3 | 4 | 4 | 5 | 20 | 80 |
| **Sum** | | 40 | 38 | 41 | 40 | 47 | 206 | 824 |
| **Average** | | | | | | | 20.6 | 82.4 |

It can be known that the question number 2 is the lowest score among others, which means that in question number 2 it is the most difficult for students to answer the question. While question number 5 has a higher score among others, it means that question number 5 is the easiest for students to answer. For the average on the Post Test in the Experimental class, the score is 82.4 which is above the average in the class. The average in a good class is above 59.

Questionnaire is a tool used to collect data by making a list of questions in writing and then the resource person will fill it in a written way as well. In this questionnaire method, researchers use a closed questionnaire in which there are alternative answers that have been determined by the questionnaire maker. The answers in the questionnaire are in the form of answersn Agree or Disagree or multiple choice so that the source does not have the ability to fill in with their own answers. The following are the questionnaires distributed to students through a Google Form:

**Table 5.** Self-Assessment Questionnaire

| No. | Statement | Self-Assessment | |
|---|---|---|---|
| | | Agree | Neutral |
| 1 | Teachers use learning media in teaching | | |
| 2 | Every teacher teaches using learning media other than books | | |
| 3 | I find it easier to understand Fiqh lessons after the teacher uses learning media | | |
| 4 | I love learning Fiqh with White Board Animation media | | |
| 5 | I believe that the lessons of Fiqh are very easy to understand | | |
| 6 | White Board Animation learning media makes students active in Fiqh learning | | |
| 7 | With the learning media of White Board Animation and games, students are increasingly interested in learning Fiqih | | |
| 8 | Learning media makes me no longer afraid of FIQIH lessons | | |
| 9 | The teacher develops the subject matter according to the learning objectives | | |
| 10 | With the learning media of White Board Animation, students are very motivated in learning Fiqih | | |
| **Sum** | | | |
| **Total** | | | |

***Control Class***

**Tabel 6.** Self-Assessment Questionnaire in The Control Class

| No. | Name | Self-Assessment Questionnaire | | Sum | Value |
|---|---|---|---|---|---|
| | | S | TS | | |
| 1 | Achmad Zainal Rosul | 10 | | 10 | 100 |
| 2 | Angry Dimastha Syawallon | 10 | | 10 | 100 |
| 3 | Hanikram Barka Illaha | 10 | | 10 | 100 |
| 4 | Herno Adi Sanjaya | 10 | | 10 | 100 |
| 5 | Lutfi Ardianyah Primary | 10 | | 10 | 100 |
| 6 | Mochamad Saddam Azhari | 9 | 1 | 10 | 95 |
| 7 | Muchammad Muhlis | 10 | | 10 | 100 |

| | | | | | |
|---|---|---|---|---|---|
| 8 | Muhammad Alfin | 9 | 1 | 10 | 95 |
| 9 | Nuzulur Rayhan Agta Saputra | 10 | | 10 | 100 |
| 10 | Rosul Abidin | 10 | | 10 | 100 |
| | **Sum** | 98 | 2 | 100 | |
| | **Total** | 98% | 2% | 100% | |

S = Agree
TS = Disagree
Shoes:
S = x 10
TS = x 5
Minimum Score = 50
Maximum Score = 100

To calculate the assessment of respondents' interpretation of learning media, namely the results of the values produced using the index formula. As follows:

**Formula of Index % = Total Score / Y x 100 %**

Y = maximum score

In the table above, in the control class, it can be seen that 98% of students answered in agreement with the questions asked while 2% of students answered disapprovingly.

***Experimental Class***

**Table 7.** Self-Assessment Questionnaire in the Experimental Class

| No. | Name | Questionnaire | | Sum | Value |
|---|---|---|---|---|---|
| | | S | TS | | |
| 1 | Amira Sari Dewi | 10 | | 10 | 100 |
| 2 | Ayu Duwi Safira | 10 | | 10 | 100 |
| 3 | Azra | 10 | | 10 | 100 |
| 4 | Cantika | 10 | | 10 | 100 |
| 5 | Dela Puspita Aurelia | 10 | | 10 | 100 |
| 6 | Dewi Ratna Anjani | 10 | | 10 | 100 |
| 7 | Fardania Nur Kholifah | 10 | | 10 | 100 |
| 8 | Indah Sofiatul Laili | 10 | | 10 | 100 |
| 9 | Mei Dina Rahayu Ainur Rokhman | 10 | | 10 | 100 |
| 10 | Siti Asyifa | 10 | | 10 | 100 |
| | **Sum** | 100 | 0 | 100 | |
| | **Total** | 100% | 0% | 100% | |

In the table above in the experimental class, it can be seen that 100% of students answered in agreement with the questions asked while 0% of students answered disagreeing.

The following is a chart of the Answers in the Select in the control class:

**Table 8.** Answers selected Self-Assessment in Control Class

| No. | Answers in Choose | Value | Maximum Value | Percent |
|---|---|---|---|---|
| 1 | Agree | 50 | 98 | 98% |
| 2 | Disagree | | 2 | 2% |
| | **Sum** | 50% | 100% | |

After the researcher sees the students' answers in the table above, the students can score well. The following is a chart of the answers selected in the control class:

**Table 9.** Selected Answers Regarding Self-Assessment in the Experimental Class

| No. | Answers in Choose | Value | Maximum Value | Percent |
|---|---|---|---|---|
| 1 | Agree | 50 | 10 | 100% |
| 3 | Disagree | | 0 | 0% |
| | **Sum** | 50 | 100% | |

After the researcher sees the students' answers in the table above, the students can score well.

**Discussion**

***The Answer to the Formulation of the First Problem***

First, observations at MI Mutiara Bunda, researchers applied white board animation learning media to Fiqh subjects through zoom meetings. Then researchers applied the white board animation learning media and students noticed. Then the research observed that students at MI Mutiara Bunda Surabaya were very focused on paying attention and enthusiasm when applied to white board animation learning media, then students wanted to apply White Board Animation learning media to other subjects.

Secondly, interviews. Researchers interviewed one of the Fiqh teachers named Faridha Khusfidha, S.Pd.I. where in the current pandemic era the difficulties experienced by students are the material conveyed is not optimal due to the lack of face-to-face face-to-face between students and teachers in schools, especially the constraints of communication tools such as inadequate cellphones and students lacking enthusiasm for learning due to the lack of learning media in the current pandemic era. Researchers analyzed that the most appropriate media in the pandemic era like today is the White Board Animation learning media to be applied to MI Mutiara Bunda Surabaya students.

The third is library research. The difference between this study and previous research is that this research is appropriate when applied in the current pandemic era, data collection is carried out not only by interviews but also by observation, library research, questionnaires, written tests and questionnaires, so that the data obtained are not only subjective but also objective. Filling out the questionnaire is carried out together with respondents so that more

accurate data is obtained. As for the limitation of the study, data collection at the interview stage is only carried out with the teacher concerned and does not involve students.

***Second Problem Formulation Answer***

It can be known that the Value of Ho is accepted or rejected as follows:

a. If the signification > 0.05 then Ho is accepted
b. If the signification < 0.05 then Ho is rejected

Meanwhile, if it is known that the value of r count and r table is accepted or rejected, which is as follows:

a. If $t_{count} > t_{table}$, then Ho is rejected
b. If $t_{count} < t_{table}$, then Ho is accepted

The following is a formula using one sample t-test for the Pre Test questionnaire of the control class and the experimental class:

$$t = \frac{\bar{x} - \mu_o}{\frac{S}{\sqrt{n}}}$$

Information:

t : Calculated value of t
$\bar{x}$ : Average
$\mu_o$ : Hypothesized value
s : Standard deviation
n : Number of samples

**Table 10.** One-Sample Statistics of Control Class Results and Experiments on Pre-Test

**One-Sample Statistics**

| | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|
| Control Class | 10 | 45.2000 | 12.08121 | 3.82041 |
| Experimental Class | 10 | 12.5000 | 1.17851 | .37268 |

**Table 11.** One-Sample Test Results of Control Classes and Experiments on Pre-Test

**One-Sample Test**

| | Test Value = 0 | | | | | |
|---|---|---|---|---|---|---|
| | t | Df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference | |
| | | | | | Lower | Upper |
| Control Class | 11.831 | 9 | .000 | 45.20000 | 36.5576 | 53.8424 |
| Experimental Class | 33.541 | 9 | .000 | 12.50000 | 11.6569 | 13.3431 |

In the out put one sample statistics table, it shows that the sample of this study amounted to (N) = 20 students including 10 male students in the control class and 10 female students in

the experimental class. The average critical thinking of students during the Pre Test is 45,2000 for the control class and 12,5000 for the experimental class. The standard deviation (standard deviation) is 12.08121 for the control class and 1.17851 for the experimental class and the standard error of mean is 3.82041 for the control class and 0.37268 for the experimental class.

In this case there is a mean difference of 45.20000 for the control class and 12.50000 for the experimental class. It has a range between the lower (lower limit) of 36.5576 to the upper (upper limit) of 11.6569.

In the Table Out Put one sample test contains data from the analysis of the t-test of one sample where the value of t count is 11,831 for the control class and 33,541 for the experimental class, df (degree of freedom) or degree of freedom 9 (N-1), where $t_{count} > t_{table}$ (11,831 > 2,262) for the control class and (33,541 > 2,262) then Ho is rejected and Ha is accepted. This means that the average critical thinking score of grade VI students is lower than the estimated score of 70 and there is an influence of learning media on critical thinking. The control class and experimental class score below 70.

In this case, it can be seen that the significance of 0.000, because the significance of the < 0.05 then Ho is rejected and Ha is accepted meaning that the average critical thinking of students is lower than the estimated score.

***Third Problem Formulation Answer***

The following is a formula using paired sample *t-test* for the oral test post of the control class and the experimental class:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2} - 2r\left[\frac{s_1}{\sqrt{n_1}}\right]\left[\frac{s_2}{\sqrt{n_2}}\right]}}$$

Information:

$\bar{x}_1$ : Sample average 1
$\bar{x}_2$ : Sample average of 2
$s_1$ : Standard deviation of sample 1
$s_2$ : Standard deviation of sample 2
$s_1^2$ : Sample variant 1
$s_2^2$ : Sample variant 2
r : Correlation between two samples

**Table 12.** Paired Samples Statistics Control Class and Experimental Class on Post Test

**Paired Samples Statistics**

| | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| **Pair 1** | Not applying learning media | 60.4000 | 10 | 7.16783 | 2.26667 |
| | Penerapan White Board Animation | 82.4000 | 10 | 6.85079 | 2.16641 |

**Table 13.** Paired Samples Correlations Control Classes and Experimental Classes on Post Test

| Paired Samples Correlations | | | | |
|---|---|---|---|---|
| | | **N** | **Correlation** | **Sig.** |
| Pair 1 | Not Applying learning media & Applying White Board Animation | 10 | -.167 | .646 |

**Table 14.** Paired Samples Test Control Class and Experimental Class on Post Test

| Paired Samples Test | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **Paired Differences** | | | | | | | |
| | | | | | **95% Confidence Interval of the Difference** | | | | |
| | | **Mean** | **Std. Dev** | **Std. Error Mean** | **Lower** | **Upper** | **t** | **df** | **Sig. (2-tailed)** |
| **Pair 1** | Not applying learning media for the application of White Board Animation | -2.20000E1 | 10.70825 | 3.38625 | -29.66022 | -14.33978 | -6.497 | 9 | .000 |

The paired sample statistics table contains a descriptive about students' critical thinking in facing Fiqh lessons between before and after being given White Board Animation media which includes a lot of data, mean, standard deviation and standard error mean.

The amount of data (N) of each student between before and after being given white board animation media = 10, the average (mean) level of critical thinking of students in facing Fiqih lessons before being given white board animation media = 60.4000 and the average (mean) level of critical thinking of students in facing Fiqh lessons has been given white board animation media = 82.4000. The standard deviation for those who have not been given media is 7.16783, and after being given media is 6.85079. For the standard error of mean, respectively, the one that has not been established by the media is 2.26667 and the one that has been obtained is 2.16641.

Based on the average comparison (mean) of students' critical thinking level in facing Fiqh lessons between before being given White Board Animation media = 60.4000 and after being given White Board Animation media = 82.4000. This means that there is a significant increase in students' self-assessment in the face of Fiqh lessons.

In the paired sample correlation table -0.167 is rounded to a positive 0.167 which shows the relationship between students' critical thinking towards White Board Animation media in the face of Fiqh lessons before and after being given White Board Animation media.

Meanwhile, the paired sample test table contains data on the results of the t-test analysis of two paired samples which includes t-count and significance.

Hypothesis testing by comparing $t_{count}$ with $t_{table}$. To see the price of t table then based on the degree of freedom (et al), the magnitude of which is N-1 which is 10-1=9, based on the results of the analysis of the t test of two paired samples, the following results can be obtained: t count greater than t table -6,497 rounded to positive i.e. (6,497 > 2,262), then Ho was rejected and Ha was accepted which means that there is an influence on the level of critical thinking of students in facing Fiqh lessons between before and after being given the media White Board Animation .

In this case it is seen that the significance of 0.000 < than 0.05 then Ho is rejected and Ha is accepted meaning the hypothesis stating that there is an influence on the level of critical thinking of students between before and after being given the medium of White Board Animation, meaning that the level of critical thinking of students between before and after being given media is different.

The following is a formula using one sample t-test for the control class questionnaire test post and the experimental class:

**Table 15.** One-Sample Statistics Control Class and Experimental Class on Test Post Test

| One-Sample Test | | | | | | |
|---|---|---|---|---|---|---|
| | Test Value = 0 | | | | | |
| | | | | | 95% Confidence Interval of the Difference | |
| | t | df | Sig. (2-tailed) | Mean Difference | Lower | Upis |
| Control Class | 148.500 | 9 | .000 | 99.00000 | 97.4919 | 100.5081 |

**Table 16.** One-Sample Test Control Class and Experimental Class on Post Test

| One-Sample Statistics | | | | |
|---|---|---|---|---|
| | N | Mean | Std. Dev | Std. Error Mean |
| Control Class | 10 | 99.0000 | 2.10819 | .66667 |
| Experimental Class | 10 | 1.0000E2 | .00000[a] | .00000 |
| a. t cannot be computed because the standard deviation is 0. | | | | |

In the table out put one sample statistic, it shows that the sample of this study amounted to (N) = 20 students including 10 male students in the control class and 10 female students in the experimental class. The average personal assessment of students in the application of White Board Animation media to critical thinking during post-test is 99,0000 for control classes and 1,0000E2 for experimental classes. The standard deviation (standard deviation) is 2.10819 for the control class and 0.00000a for the experimental class and the standard error of mean is 0.66667 for the control class and 0.00000 for the experimental class.

In this case, there is an average difference (mean difference) of 99.00000. It has a range between the lower (lower limit) of 97.4919 to the upper (upper limit) of 100.5081.

The out put one sample test table contains data from the t-test analysis of one sample where the value of t count is 148,500, df (degree of freedom) or degree of freedom 9 (N-1), where t count > t table (148,500 > 2,262) then Ho is rejected and Ha is accepted, meaning that the average personal assessment of class VI students in the application of White Board Animation media to critical thinking when post test there is an influence of learning media on critical thinking in control classes and experimental classes.

In this case, it can be seen that the significance of 0.000, because the significance of the < 0.05, Ho was rejected and Ha was accepted, meaning that there was an influence of the personal judgment of class VI students in the application of White Board Animation media to critical thinking.

The following is a formula for the reliability of research in control classes and experiments:

$$r_{11} = \frac{n}{n-1}\left[1 - \frac{\sum_{i-1}^{n} S_i^2}{s_t^2}\right]$$

With:

$r_{11}$ is the coefficient of reliability

n is the number of items about

$S_i^2$ is *the variance of* the score of the i-th question

$s_t^2$ is *the variance of* the total score

**Tabel 17.** Case Processing Summary

**Case Processing Summary**

| | | N | % |
|---|---|---|---|
| Cases | Valid | 20 | 100.0 |
| | Excluded[a] | 0 | .0 |
| | Total | 20 | 100.0 |

a. Listwise deletion based on all variables in the procedure

**Table 18.** Reliability Statistics

**Reliability Statistics**

| Cronbach's Alpha | N of Items |
|---|---|
| .768 | 5 |

**Table 19.** Item-Total Statistics

**Item-Total Statistics**

| | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted |
|---|---|---|---|---|
| question1 | 14.35 | 7.187 | .608 | .702 |
| question2 | 14.40 | 8.568 | .456 | .754 |
| question3 | 14.40 | 6.358 | .698 | .663 |
| question4 | 14.30 | 8.011 | .368 | .784 |
| question5 | 13.95 | 6.682 | .596 | .705 |

The first output table of the case precessing summary above, provides information about the number of samples or respondents (N) analyzed in the SPSS program, namely N as many as 20 students. Since there is no empty data (in the sense that the respondent's answer is filled in all) then the valid amount is 100%.

The second Output Table of reliability statistics from the output table above is known to have N of Items (The number of items or items of questionnaire questions) there are 5 items with a Cronbach's Alpha value of 0.768. Because the value of Cronbach's alpha is 0.768 > 0.60, it is as the basis for decision making in the reliability test above. It can be concluded that the 5th or all items of the written test questions for the variable "The influence of White Board Animation in the learning of jurisprudence on the critical thinking of students" is reliable or consistent.

The output table above gives an idea of the statistical values for all 5 items of the written test questions. Notice in the column "Cronbach's Alpha if Item Deleted" in this table it is known that the value of cronbach's alpha for the five questions is > 0.60, then it can be concluded that all five items of the written test questions are reliable.

1) If the value of cronbach's alpha > r table then the questionnaire is declared reliable;
2) If cronbach's alpha < the table then the questionnaire is declared unreliable.

Based on the "reliability statistics" output above, it is known that the value of Cronbach's alpha is 0.768. We will then compare the value of the table r with N = 20 searched for in the distribution of the table's r value at a significance of 5% then a value of 0.444 is obtained. since the value of cronbach's alpha is 0.768 > 0.444 (r table) then as the basis of the above decision making. We can conclude that the written test "The influence of White Board Animation in Fiqh learning on students' critical thinking" is declared reliable or reliable as a data collection tool in research.

## CONCLUSION

There is an influence of the use of White Board Animation on jurisprudence subjects on the critical thinking of MI Mutiara Bunda Surabaya students. The calculation of the control class writing test and the experiment on the post test is known to be calculated to be greater than t table (6,497 > 2,262), then Ho is rejected and Ha is accepted which means that there is

an influence on the level of critical thinking of students in facing Fiqh lessons between before and after being given the media of White Board Animation. Significance of 0.000 < than 0.05 then Ho is rejected and Ha is accepted meaning the hypothesis that states that there is an influence on the level of critical thinking of students between before and after being given the media White Board Animation, meaning that the level of critical thinking of students between before and after being given media is different.

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