

Murottal Al Quran in Basic Physics Learning: Measuring Student Learning Concentration

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Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh Murottal Al-Quran terhadap konsentrasi belajar mahasiswa Tadris Biologi IAIN Kerinci dalam pembelajaran fisika dasar. Jenis penelitian ini adalah kuantitatif dengan pendekatan yang digunakan adalah pendekatan eksperimen dengan tipe rancangan *two group post-test control group design*. Teknik pengambilan sampel yaitu menggunakan teknik *random sampling*. Teknik pengumpulan data yaitu dengan menggunakan Angket. Metode analisis data yang digunakan adalah metode statistik non parametrik dengan menggunakan rumus uji peringkat bertanda Wilcoxon (Wilcoxon signed-rank test). Dalam penelitian ini, peneliti menggunakan teknik analisis Wilcoxon signed-rank test dengan bantuan aplikasi Software SPSS. Hasil penelitian menunjukkan bahwa pada kelas kontrol tidak terdapat perbedaan konsentrasi belajar mahasiswa antara konsentrasi belajar awal dan konsentrasi belajar akhir. Sedangkan pada anggota eksperimen diperoleh nilai Z_{Hitung} sebesar -3.973, berarti Z_{Hitung} lebih besar dari Z_{tabel} (-3.973 < -1.96), artinya terdapat perbedaan konsentrasi belajar mahasiswa antara sebelum dan sesudah diberikan treatment yaitu murottal Al-Quran.

Kata kunci: Murottal Al Quran; Pembelajaran Fisika Dasar; Konsentrasi Belajar Mahasiswa

Abstract

This study aims to determine the effect of the Murottal Al-Quran on the learning concentration of Tadris Biology students at IAIN Kerinci in learning fundamental physics. This type of research is quantitative, with the experimental approach with a two-group post-test type control group design. The sampling technique used is the random sampling technique. The data collection technique is by using a questionnaire. The data analysis method is a non-parametric statistical method using the Wilcoxon signed rank test formula (Wilcoxon signed-rank test). In this study, the researcher used the Wilcoxon signed-rank test analysis technique with the help of the SPSS software application. The results showed that in the control class, there was no difference in student learning concentration between the initial and final learning concentration. While the experimental members obtained the value of Z_{Count} -3.973, which means Z_{Count} greater than Z_{table} (-3.973 < -1.96), meaning that there is a difference in student learning concentration between before and after being given treatment, namely murottal Al-Quran.

Keywords: Murottal Al Quran; Basic Physics Learning; Student Learning Concentration.

PRELIMINARY

Tadris Biology is one of the majors in the Faculty of Tarbiyah and Teacher Training. Where there are faculty courses, one of which is introductory physics courses taught by Mathematics and Natural Sciences students. The process of introductory physics lectures is different from other subjects that can be learned by reading and memorizing. However, understanding, analysis, accuracy, and working on practice questions continuously during the learning process are also required. In the field, the researchers found that the lack of attention to the lecture process was due to a lack of concentration in learning. The

concentration of learning is the main thing in the teaching and learning process which, if not resolved, the objectives and teaching and learning activities will be in vain.

Learning is a change and improvement in the quality and quantity of a person's behavior in various fields resulting from continuous interaction with the environment. Thus, learning is a process carried out by individuals consciously to obtain specific behavioral changes, both those that can be observed directly or cannot be observed directly as experiences in their interactions with the environment. According to Baharuddin (2010), the notion of learning is intelligence or knowledge to meet needs that have not been previously possessed so that in the learning process, humans become aware, understand, understand, can implement, and have something.

The Qur'an, as a guide for humans in carrying out various activities of the teaching and learning process, is believed to contain instructions on how to realize the conditions of good and effective teaching and learning process. In addition, listening to the murottal Al Quran can also reduce anxiety and tension experienced by a person, so it is expected to increase student concentration in learning.

Aizid (2016) In terms of language, the Quran means reading or being read. The word Quran comes from the Arabic "Qaraa," which means to collect letters and words from one another in a neat arrangement. The results of the study by Omar Mohammad Al Thaoumy in Abuddin (2016) stated that the Koran is the basis of life, bio-psychology, and psychology. The physical recitation of the Quran contains the element of the human voice, which is a fantastic healing tool and the most accessible tool. At the same time, audio is a teaching aid that can be heard (Eko-Hadi). Based on several definitions, murrotal Al Quran audio therapy is an activity of listening to a recorded reading of the verses of the Koran, which is sung by a Qori' or Al Quran reader by excellent and correct recitation.

Concentration is the most crucial part of the learning process where students are required to absorb lecture material. Concentration is related to the individual's efforts to focus his attention on an object so that he can understand and understand. If you do not concentrate, your attention will quickly shift. This causes the individual to be less able to understand the material as a whole. According to Nurytana (2010), concentration is the key in the memory process both when storing or when issuing information, and good concentration is also one of the factors that can bring success in the learning process.

Difficulty in concentrating is caused by the tension of the mind and muscle tension. With tense or stressful conditions, it can make thinking activities not optimal, resulting in individuals having difficulty absorbing learning. The teaching and learning process not only transforms students' knowledge, insight, experience, and skills but also explores, directs, and fosters all the potential within students.

Based on the experience of researchers when teaching fundamental physics courses so far, the researchers saw that most students had difficulty concentrating on absorbing the lecture process, as seen by the difficulty in solving problems from the questions given. Researchers want to reduce anxiety and tension experienced by a person so that it is expected to increase concentration. Research conducted by Very (2014) found that listening to the Murattal Al Quran increases concentration ability. So this study aims to determine how much influence listening to the chanting of the Koran or murottal verses has on learning concentration.

This research was carried out at IAIN Kerinci in the Biology education department for students teaching introductory physics courses. With the aim of the research is to determine the concentration of learning biology education students in learning fundamental physics by using and without using Murottal Al-Qur'an and to find out whether there is an effect on the concentration of students learning in learning introductory physics.

METHOD

This type of research is quantitative, emphasizing the analysis of numerical data (numbers) processed by statistical methods. While the approach used is an experimental approach in which the object of this research consists of two classes, namely the

experimental class and the control class. In the experimental class using the murattal Al-Qur'an, while in the control class without using the murattal Al-Qur'an. The research design that will be used in this study is random sampling of the subject as shown in table 1 below:

Table 1 Research Design

Class	Pre-Test	Treatment	Final Test
Experiment	O_1	X	T_1
Control	O_2	-	T_2

Information:

- X: The treatment given to the experimental class
- O_1 : *Pre-Test* Experiment class
- O_2 : *Pre-Test* Control class
- T_1 : Experiment class test
- T_2 : Control class test

Experimental research designs are broadly grouped into 4: *pre-experimental*, true-experimental, factorial, and quasi-experimental (Sugiyono. 2015). In this study, a two-group pretest-posttest design was used. The data collection technique used a questionnaire. The questionnaire used was a psychological scale. The student learning concentration questionnaire instrument in this study adopted a student learning concentration scale questionnaire. The research variables are the independent variable and the dependent variable. The data analysis technique was carried out to find out the answers to the problems formulated using the Wilcoxon test statistical analysis (Wilcoxon signed-rank test). This study uses the help of SPSS software applications.

RESULTS AND DISCUSSION

The data from this study were obtained from a student learning concentration questionnaire. The description of the data is done to facilitate the presentation of the data for each research variable before analyzing the research data. At the concentration of learning biology education, students in learning fundamental physics without using murottal Al Quran as shown in table 2 below:

Table 2. Description of Control Group Statistics

	N	mean	Standard deviation	Minimum	Maximum
Initial Concentration	22	78.3636	2.66450	72.00	82.00
Final Concentration	22	78.8182	2.83912	74.00	83.00

Table 2 shows data obtained from the initial learning concentration and the final learning concentration of students based on the scores obtained on the learning concentration scale questionnaire in the control class. Data analysis of early learning concentration in the control class obtained the minimum value is 72, and the maximum value is 82. The mean (mean) of 22 respondents was 78.4 with a standard deviation of 2.7. While the data analysis of the final learning concentration of students in the control class obtained a minimum value of 74 and a maximum value of 83, the mean (mean) is 78.8 with a standard deviation of 2.8.

The statistical data above shows that the average value of early learning concentration in the control class is 78.4, while the average value of final learning concentration of students is 78.8. This shows no significant increase in student learning concentration in the control class.

The concentration of Biology education students in learning fundamental physics using Murratal Al-Qur'an shows the results of the concentration questionnaire as shown in table 3 below:

Table 3. Description of Experimental Group Statistics

	N	mean	Standard deviation	Minimum	Maximum
Initial Concentration	22	75.4090	2.75437	68.00	79.00
Final Concentration	22	80.2273	2.32854	76.00	83.00

Table 3 shows data obtained from the initial learning concentration and the final learning concentration of students based on the scores obtained on the questionnaire on the learning concentration scale in the experimental class. Data analysis of the concentration of early learning in the experimental class obtained a minimum value of 68.00 and the maximum value of 79.00. The mean (mean) of 22 respondents is 75.4, with a standard deviation of 2.7. While the data analysis of the final learning concentration of students in the experimental class obtained a minimum value of 76.00 and a maximum value of 83.00, the average value (mean) of 80.2 with a standard deviation of 2.3.

The statistical data above shows that the average value of the initial learning concentration in the experimental class is 75.4, while the average value of the final learning concentration of students is 80.2. This shows that there is an increase in student learning concentration before and after being given treatment, namely listening to the Murattal Al-Qur'an in the experimental class.

In seeing whether or not there is an effect of giving Murottal Al-Qur'an on students' concentration in learning introductory physics. The analysis used is the Wilcoxon Signed Ranks Test analysis. The criteria that can be tested using the Wilcoxon Signed Ranks Test are ordinal data. The Wilcoxon test was carried out to determine the effect of giving Murattal Al-Quran on learning concentration. Table 4 below shows the Wilcoxon test result of student concentration in the control and experimental classes.

Table 4. Wilcoxon Test Results of Student Learning Concentration

Student Study Concentration	N	Score _{Count}	Significance
Experiment Class	22	-3.973	0.000
Control Class	22	-1,240	0.215

Hypothesis test Z_{table} can be seen in table Z, with $\alpha = 5\%$ and two-tailed test (5% is divided into 2 to 2.5%), then the area of the normal curve is $50\% - 2.5\% = 47.5\%$ or 0.475 . Due to the two-sided test, in table Z for an area of 0.475 , the value of Z_{table} is obtained $Z_{table} = -1.96$.

Based on the results of the Wilcoxon signed ranks test analysis for control group members, the value of Z_{Count} is obtained Z_{Count} of $-1,240$, means Z_{Count} greater than Z_{table} ($-1.240 > -1.96$), then H_0 is accepted, and H_a is rejected, meaning that there is no difference in student learning concentration between the initial learning concentration and the final learning concentration. While the experimental members obtained the value of Z_{Count} of -3.973 , which means Z_{Count} greater than Z_{table} ($-3.973 < -1.96$), then H_0 is rejected, and H_a is accepted, meaning that there is a difference in student learning concentration between those before and after being given treatment, namely murottal Al-Quran.

In the significance column, it can be seen that the significance level of the control group members is 0.215 . Because the significance is more significant than 0.05 ($0.215 > 0.05$), H_0 is accepted, and H_a is rejected, meaning that there is no difference in student learning

concentration between the initial and final concentrations. On the other hand, while the significance level of the experimental group members is 0.000, because the significance is more significant than 0.05 ($0.000 < 0.05$), then H_0 is rejected, and H_a is accepted, meaning that there is a difference in student learning concentration between before and after being given audio therapy murottal Al-Quran.

The results of this study indicate an increase in student learning concentration after using murottal al-Qur'an in the learning process. The results of this study are relevant to several other studies, which also show that students' learning concentration increases after using murottal al-Qur'an in the learning process (Maharani & Putri, 2019; Ali et al., 2020; Nugraha, 2020; Julianto et al., 2014).

CONCLUSION

The concentration of student learning using the murottal Al-Qur'an shows an increase in the concentration of student learning before and after being given treatment, namely an increase in the value of 4.8. With the average value of the initial learning concentration of 75.4 and the average value of the final student's concentration of 80.2. At the same time, the concentration of student learning without using the murottal Al-Qur'an showed no significant increase, namely as much as 0.4 with an average initial learning concentration of 78.4, while the average value of final learning concentration of students was 78.8.

Based on the results of the Wilcoxon signed ranks test analysis for control group members, the value of Z_{Count} of -1,240, means Z_{Count} greater than $Z_{\text{table}}(-1.240 > -1.96)$, then H_0 is accepted, and H_a is rejected, meaning that there is no difference in student learning concentration between the initial learning concentration and the final learning concentration. While the experimental members obtained the value of Z_{Count} of -3.973, which means Z_{Count} greater than $Z_{\text{table}}(-3.973 < -1.96)$, then H_0 is rejected, and H_a is accepted, meaning that there is a difference in student learning concentration between before and after being given treatment, namely murottal Al-Quran.

Based on the results of research that have been done, suggestions related to the implementation of the murottal Al-Qur'an can be input to higher education institutions, especially lecturers, which can be an alternative in helping optimize student learning concentration, especially in the introductory physics learning process. Furthermore, it can pay attention to the factors that can affect the concentration of student learning. For example, the class noise factor and the lecturer's way of explaining.

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