The Influence of Differentiated Instruction on the Learning Outcomes of Islamic Religious Education Subject at SMP Negeri 1 Bansari

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Abstract:

This research investigates the impact of implementing differentiated learning on the learning outcomes of Islamic Education subject at SMP Negeri 1 Bansari. The study utilizes an experimental method, with the experimental class receiving additional treatment compared to the control class. Quantitative data collection techniques including observation, tests, and documentation are employed, with analysis involving prerequisite, normality, and hypothesis testing. The population comprises seventh-grade students, with thirty students each in the experimental and control classes. Results indicate that the experimental class, implementing differentiated learning, achieved higher average post-test scores (76.5) compared to the control class (64.2) using the lecture method. Statistical analysis confirms a significant influence of differentiated learning on learning outcomes (t-value > t-table value, 13.141 > 2.763, n=30, p<0.05). The findings suggest that implementing differentiated learning methods positively affects student learning outcomes in Islamic Education.

Introduction (مقدمة)

Education in the Republic of Indonesia Law of 2003 No. 20, chapter 1, article 1, clause 1 is defined as a conscious and planned effort to create an environment and learning process that enables learners to actively develop their potential. (Muhibbin Syah, 2008) The challenges faced by the national education system today are highly complex and intricate. (Trianto, 2009) One example is the low quality of education, which can be observed through the lack of learning interest among learners. The Government, through the Ministry of Education, Culture, Research, and Technology (KEMDIKBUDRISTEK), has taken significant and gradual steps by transitioning the learning curriculum from Curriculum 2013 to the Curriculum Merdeka. The main objective is to enhance the role of the curriculum in the educational transformation

process in the current and future eras. (Muqorobin, 2023)

Curriculum is an educational plan that encompasses various subjects and activity programs required to complete a predetermined educational program. (Sholeh Kurniandini, Muhammad Iqbal Chaelani, and Abdul Wahab Fahrub, 2022) The Merdeka curriculum is an approach that provides opportunities for learners to express their natural potential and talents. (Susilowati 2022, p. 116.) According to the National Education Standards Agency (BSNP), the Merdeka Belajar curriculum can be interpreted as a learning curriculum that involves an approach based on individual interests and talents. (Susilowati, 2022) The Merdeka Belajar curriculum is an effort of restructuring within the national education system in Indonesia. Yamin and Syahrir state that this declaration aims to embrace the progress and changes of the nation to adapt to the evolving times. (Yamin and Syahrir, 2022) Through the implementation of the Merdeka curriculum, it is expected that learners can develop themselves according to their potential and abilities. The Merdeka curriculum provides learners with a quality, critical, applicable, expressive, progressive, and varied learning experience.

Islamic Religious Education (PAI) has become an important part of the curriculum at every level of education and is considered a compulsory subject for learners, including at SMP Negeri 1 Bansari. However, there are many learners who still lack interest in this subject. Islamic Religious Education is often considered less engaging, and many still underestimate its importance. Several factors can influence this phenomenon, such as the education system often lacking in delivering materials about etiquette and the attributes of Allah, the educators' lack of precision in choosing appropriate teaching methods and strategies, the insufficient variety of teaching styles leading to monotonous learning experiences, and the educators' inadequate religious knowledge in both theory and practice.

Studying Islamic Religion is highly important, especially when employing teaching methods that can capture the learners' attention, one of which is by implementing differentiated instruction. In the process of learning, differentiated instruction holds a central role. Differentiated instruction provides learners the freedom to independently choose the media and subjects they prefer as a result of their Islamic Religious Education learning. This allows learners to more easily develop their capacity and abilities during the learning process.

One of the factors contributing to the low quality of education, particularly in learners' interest in studying Islamic Religion, is the lack of motivation. Consequently, this leads to decreased engagement in the learning process and poor learning outcomes. Additionally, negative conditions within learners, such as drowsiness or daydreaming during teaching activities, further exacerbate the situation. The lack of interest and motivation in comprehending the lessons can be observed through learners' diminished enthusiasm during the learning process at school.

The success of the learning process depends on a teacher's ability to utilize appropriate strategies, methods, and media that cater to the learners' educational needs. In their efforts to nurture competitive individuals in the global era, educators can leverage their knowledge to provide a comprehensive understanding of religion to learners and apply the acquired knowledge in their daily lives.

The objectives of this research are: (1) To determine the learning outcomes of students in the implementation of differentiated instruction in the subject of Islamic Religious Education at SMP Negeri 1 Bansari. (2) To assess the impact of differentiated instruction on the learning outcomes of the Islamic Religious Education subject at SMP Negeri 1 Bansari.

Method (منهج)

This research employs an experimental method, involving the researcher in controlling one or more independent variables. The research subjects are the 7th grade classes, specifically Class VII A and VII G, at SMP Negeri 1 Bansari. The study type is quantitative descriptive. The research design utilized is the true experimental pretest-posttest control group design. Data collection techniques involve observation, objective tests, and documentation. The observation covers all 7th-grade classes at SMP Negeri 1 Bansari, the objective test includes instrument testing in Class VII E, and the pretest and post-test are conducted in Classes VII A and VII G. Documentation encompasses CP-ATP, Teaching Modules, History of SMP Negeri 1 Bansari, Organizational Structure, Educator and Learner Data, and Activity Photos.

Data analysis techniques include prerequisite tests like validity, reliability, item difficulty, and item discrimination tests, as well as tests for normality, significance, and hypothesis using t-test. The entire 7th-grade student population of SMP Negeri 1 Bansari is considered the population, with a sample size of thirty students in both the experimental and control groups. Conclusions will be drawn based on the difference in post-test scores between the experimental and control groups. The hypothesis proposed is, "There is an influence of Differentiated Instruction on the improvement of Islamic Religious Education learning outcomes at SMP Negeri 1 Bansari."

Result (نتائج)

The results of the research at SMP Negeri 1 Bansari regarding the implementation of the Merdeka Belajar curriculum can be observed from the preconditions testing and data analysis. In the instrument test, there were 30 questions, consisting of 24 valid questions and 6 invalid questions. Based on the reliability test calculation using the Kuder Richardson (KR) 20 formula, the result obtained was 0.92617. This indicates that the reliability of all test items is very high.

When measuring the difficulty level of the questions, there were 2 questions considered easy, 26 questions considered moderate, and 2 questions considered difficult. The results of the discrimination calculation show that there is a very low discriminatory power for 1 question, low discriminatory power for 2 questions, moderate discriminatory power for 12 questions, good discriminatory power for 12 questions, and very good discriminatory power for 3 questions.

The average pretest score for the experimental class is 60.5, and for the control class is 60.6. Meanwhile, the average post-test score for the experimental class is 76.5, and for the control class is 64.2. From the comparison of the average pretest and post-test scores for the Islamic Religious Education learning outcomes in both classes, it can be concluded that there is a greater improvement in the average learning outcomes in the experimental class compared to the control class.Based on the normality testing results, it can be inferred that both the pretest and post-test scores in both the experimental and control classes have a normal distribution. This indicates that the data collected randomly from the population exhibit normal characteristics.

After confirming that the data follows a normal distribution, to determine whether H0 is accepted or not, the calculation table for the pretest t-test processed through the t-test analysis in the Microsoft Excel data analysis program is presented below:

Calculation Table for Pretest t-test

T-test Two Sample Assumsing Unequal Variance

	Variabel 1	Variabel 2
Mean	60,965517	60,413793
Variance	141,32019	156,67980
Observations	29	29
Hypothesized Mean Difference	0	
Df	56	
t Stat	0,172112	
P(T<=t) one-tail	0,431984	
t Critical one-tail	1,672522	
P(T<=t) two-tail	0,863969	
t Critical two-tail	2,003240	

From the table, the obtained t-Stat (t-test) value is 0.172112, and the p-value is 0.431984. To determine whether there is a significant difference between the average scores of the experimental and control classes, a test is conducted by comparing the p-value with the significance level (0.05). From the table above, it is evident that the p-value (0.431984) > 0.05. Therefore, H0 is accepted, indicating that there is no significant difference between the average scores of the experimental and control classes.

Based on the initial hypothesis test, it is observed that the calculated t-value is 0.172112. Therefore, this value is smaller than the critical t-value in the one-tailed test with a significance level of 5% (1.699) and 1% (2.462), as well as in the two-tailed test with a significance level of 5% (2.048) and 1% (2.763). Consequently, the null hypothesis (H0) is accepted. Since the calculated t-value is less than the critical t-value (t0 < tt), there is sufficient evidence to accept H0. Based on these findings, it can be concluded that there is no significant difference between the average pretest scores of the experimental and control classes.

To determine the acceptance or rejection of H0, refer to the calculation table for the post-test t-test processed through t-test analysis in the Microsoft Excel data analysis program provided below:

Calculation Table for Post-test t-test

T-Test Two Sample Assumsing Unequal Variance

In the second hypothesis test, it can be observed that the calculated t-

	Variable 1	Variable 2
Mean	76,13793	64
Variance	186,8374	165,7143
Observations	29	29
Hypothesized Mean Difference	0	
Df	56	
t Stat	3,481226	
P(T<=t) one-tail	0,000487	
t Critical one-tail	1,672522	
P(T<=t) two-tail	0,000975	
t Critical two-tail	2,003241	

value is 3.481226. In this case, the obtained value is greater than the critical t-values both in the one-tailed test with a significance level of 5% (1.699) and 1% (2.462), as well as in the two-tailed test with a significance level of 5% (2.048) and 1% (2.763). Therefore, the null hypothesis (H0) can be rejected. With a calculated t-value greater than the critical t-value (t0 > tt), there is sufficient evidence to reject H0. Thus, it can be concluded that there is a significant difference between the average post-test scores of the experimental and control classes.

ᛁᚦᛁ Discussion (مناقشة)

1.Learning Outcomes of Students in the Implementation of Differentiated Instruction in the Subject of Islamic Religious Education at SMP Negeri 1 Bansari

The researcher conducted a final test (post-test) in both the control and experimental classes to measure the learning outcomes of Islamic Religious Education. The results of this test will be used to compare the scores of learning outcomes in Islamic Religious Education between the control class and the experimental class.

The average pretest score for the experimental class is 60.5, while for the control class it is 60.6. Meanwhile, the average post-test score for the experimental class is 76.5, and for the control class it is 64.2. From the comparison of the average pretest and post-test scores for Islamic Religious Education learning outcomes in both classes, it can be concluded that there is a greater increase in the average learning outcomes in the experimental class compared to the control class. This aligns with Nana Sudjana's perspective that learning outcomes encompass the abilities that learners possess after experiencing the learning process. Fundamentally, students' learning outcomes reflect changes in behavior that include cognitive, affective, and psychomotor aspects.

The hypothesis testing above was conducted using a significance test called t-test using separate variance on independent samples, for the pretest scores in the experimental and control classes, which were presented in the previous table. In that table, it can be seen that the calculated t-value is 0.172112. Therefore, this value is smaller than the critical t-values in the one-tailed test with a significance level of 5% (1.699) and 1% (2.462), as well as in the two-tailed test with a significance level of 5% (2.048) and 1% (2.763). Hence, the null hypothesis (H0) is accepted. Since the calculated t-value is less than the critical t-value (t0 < tt), there is sufficient evidence to accept H0. Based on these results, it can be concluded that there is no significant difference between the average pretest scores of the experimental and control classes.

The second hypothesis testing will also be conducted based on the statistical testing explained earlier. The results of the second hypothesis testing will determine whether the null hypothesis (H0) can be accepted or rejected.

H0: $\mu_1 = \mu_2$ (there is no significant difference between the means of group 1 and group 2)

H1: $\mu_1 \neq \mu_2$ (there is a significant difference between the means of group 1 and group 2)

The above hypothesis testing was conducted using a significance test known as the t-test using separate variance on independent samples, for the post-test scores in the experimental and control classes, which were presented in the previous table. In that table, it can be observed that the calculated t-value is 3.481226. In this case, the obtained value is greater than the critical t-values both in the one-tailed test with a significance level of 5% (1.699) and 1% (2.462), as well as in the two-tailed test with a significance level of 5% (2.048) and 1% (2.763). Therefore, the null hypothesis (H0) can be rejected. With a calculated t-value greater than the critical t-value (t0 > tt), there is sufficient evidence to reject H0. Consequently, it can be concluded that there is a

significant difference between the average post-test scores of the experimental and control classes.

This is consistent with Ghozali's opinion that the t-test is a method used to measure the extent to which an individual's influence from an independent variable affects the dependent variable. The t-test is conducted using a significance level of 0.05 ($\alpha=5\%$).

2. The Influence of Differentiated Instruction on the Learning Outcomes of Islamic Religious Education Subject at SMP Negeri 1 Bansari.

The preliminary test results indicate that the calculated t-value is -0.111607, while the critical t-value is 2.763. Since the calculated t-value is smaller than the critical t-value, the null hypothesis (H0) is accepted. Therefore, it can be concluded that there is no significant difference between the average pretest scores of the experimental and control classes. The final hypothesis test results show that the calculated t-value is 13.141025, while the critical t-value is 2.763. As the calculated t-value is greater than the critical t-value, this research's findings demonstrate that the implementation of differentiated instruction in Islamic Religious Education has a significant and more effective impact on the experimental class compared to the control class.

Based on the t-test results for the hypothesis, it can be concluded that firstly, there is no significant difference in the average pretest scores between the experimental and control classes in the subject of Islamic Religious Education. This is in line with the true experimental pretest post-test control group design, where two groups are randomly selected and then given a pretest to check for any initial differences between the experimental and control groups. The result of the average pretest scores shows no significant difference between the experimental and control classes because in experimental research, comparing groups with significant differences in abilities is not allowed.

Secondly, there is a significant difference between the average post-test scores of the experimental and control classes in Islamic Religious Education learning outcomes. This supports the hypothesis proposed in the true experimental pretest post-test control group design, which states that there is a significant difference between the final abilities of the experimental and control classes. The proposed hypothesis is "There is an influence of Differentiated Instruction on improving the learning outcomes of Islamic Religious Education at SMP Negeri 1 Bansari." From the data analysis, it is evident that the implementation of differentiated instruction is effective and has an impact on enhancing the learning outcomes of students in Islamic Religious Education. This can be observed from the increase in the average scores between the experimental and control classes by 12.3, with a calculated t-value greater than the critical t-value (13.141025 > 2.763).

The final hypothesis testing results indicate that after receiving treatment in the experimental class, which is the implementation of differentiated instruction, there is an influence on the learning outcomes of students in Islamic Religious Education. This aligns with the perspective of Inarotul Ulya that Influence is the power that can shape or change something else.

Conclusion (خاتمة)

The learning outcomes of students in the subject of Islamic Religious Education at SMP Negeri 1 Bansari, as observed from the average scores of the final test (post-test), indicate the following: The experimental class (VII G) that applied differentiated instruction achieved an

average post-test score of 76.5, whereas the control class (VII A) that utilized lecture methods attained an average post-test score of 64.2. Based on the average post-test scores, it can be concluded that the implementation of differentiated instruction resulted in better learning outcomes.

From the statistical t-test results on the post-test data, it can be concluded that the implementation of differentiated instruction significantly influences the learning outcomes of the Islamic Religious Education subject at SMP Negeri 1 Bansari. Based on the t-test calculation, the calculated t-value is greater than the critical t-value, which is 13.141 > 2.763 (n=30), with a significance level of 0.05 or 5%. This indicates that the alternative hypothesis (H1) is accepted and the null hypothesis (H0) is rejected. Thus, this study is able to test the validity of the hypothesis that "There is an influence of Differentiated Instruction on the learning outcomes of Islamic Religious Education at SMP Negeri 1 Bansari."

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