Jurnal Teknologi Pendidikan:
Jurnal Penelitian dan Pengembangan Pembelajaran
https://e-journal.undikma.ac.id/index.php/jtp/index

July 2023 Vol. 8, No. 3
E-ISSN: 2656-1417
P-ISSN: 2503-0602
pp. 569-578

The Effect of Religious Value-Based Reaction Rate Teaching Materials on Student Learning Outcomes Using The Guided Inquiry Model

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Abstract: This study aims to determine (1) whether there is an effect in the form of differences between student learning outcomes using reaction rate chemistry teaching materials integrated with religious values using chemistry teaching materials SMA / MA with guided inquiry models, (2) whether there are differences in students' spiritual attitudes before and after being taught with teaching materials integrated with religious values, (3) is there a relationship between improving student learning outcomes on reaction rate material with students' spiritual attitudes. The sample in this study consisted of two classes, namely the experimental class and the control class. The research instrument was a multiple choice test of 20 valid and reliable items (0.862) and a spiritual attitude questionnaire. The data analysis used is the Mann-Whitney Test non-parametric test with a significance level of 0.05l, Paired Sample T-Test test, and correlation. The results of research and testing show the ability of student learning outcomes taught using teaching materials for reaction rates integrated with religious values using guided inquiry learning models is higher than using high school / MA Chemistry teaching materials with guided inquiry models, namely (0.037 <0.05), teaching materials for reaction rates integrated with religious values provide positive value to students, and there is a significant relationship between learning outcomes and students' spiritual attitudes of 0.461 in the moderate category.

Article History
Received: 31-03-2023
Revised: 11-07-2023
Published: 20-07-2023

Key Words :
teaching materials, guided inquiry oriented, reaction rate, religious values, spirituality.

How to Cite: Haz, E., & Darmana, A. (2023). The Effect of Religious Value-Based Reaction Rate Teaching Materials on Student Learning Outcomes Using The Guided Inquiry Model. Jurnal Teknologi Pendidikan : Jurnal Penelitian dan Pengembangan Pembelajaran, 8(3), 569-578. doi:https://doi.org/10.33394/jtp.v8i3.7505
https://doi.org/10.33394/jtp.v8i2.7505

Introduction

Article 3 of Law of the Republic of Indonesia No. 20/2003 on the National Education System explains that the role of national education is to develop competence and shape the character and civilization of a dignified nation in order to educate the nation's life, to become human beings who are devoted to God Almighty, have noble character, are healthy, educated, capable, innovative, independent, and become democratic and responsible citizens. Article 31(3) of the 1945 Constitution also states that national education aims to develop students' faith and devotion to God Almighty and good character. In every field of education, the state must create sufficient resources for the development of national science based on religious demands to maintain balance and the demands of the times Hilda (2015). Based on the two legal foundations above, education in Indonesia has hopes to produce human resources who

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have a high level of cognitive ability and at the same time also have faith and piety to Allah SWT (Darmana et al., 2020).

So far, the implementation of education in Indonesia is only oriented towards the goal of making students become knowledgeable human beings. While the means to achieve spiritual attitudes (KI-1) which are identical to faith and piety are still few. The 2013 curriculum consists of four core competencies, namely spiritual attitude competency (KI-1), social attitude competency (KI-2), knowledge competency (KI-3), and skill competency (KI-4). Nowadays, many teachers only teach knowledge and skills to students, while the value of religiosity is often ignored. Darmansyah (2014) also argues that religiosity is not proportional enough in the learning process. The potential of these students is not optimally integrated in their learning, as a result children and adolescents today experience a decline in character values.

Based on the results of an interview with one of the teachers at SMA Negeri 1 Batang kuis, it was found that chemistry learning, especially reaction rate material, still applies a conventional learning model with the lecture method, where the educator provides an explanation of the teaching material and the distribution of tasks and exercises.

Budiyono and Hartini (2016) view guided inquiry learning as a series of lessons that involve students' abilities through systematic, critical, logical and analytical investigations so that students can formulate their findings. Students not only have to memorize information, but it is also easy to apply concepts to other problems. In guided inquiry, the teacher is only responsible for determining topics, supporting materials, writing and conveying problem formulations while students have the opportunity to solve problems independently, analyze results, and draw conclusions under the guidance of the teacher (Riyadi, et al., 2015). Belviyani and Lisa (2017) stated in their research that the application of character education through guided inquiry strategies in the material of electrolyte and non-electrolyte solutions in class X SMA Negeri 9 Pekanbaru was 5.86% which was included in the category starting to be seen. Some character values have increased very little, for example discipline. This can occur due to various factors, one of which is the lack of time in the learning process to apply these character values. This shows that the guided inquiry learning model has a good impact on student character and learning outcomes. Okmarisa et al. (2016) in their research stated that there was a significant difference in the learning outcomes of students taught using chemistry teaching materials integrated with spiritual values with the learning outcomes of students taught using high school / MA chemistry textbooks student handbooks. Chemistry teaching materials integrated with spiritual values that have been developed can foster spiritual values in students.

Based on the description above, researchers are interested in accepting the goals of national education and conducting research to implement religious value-based teaching materials in chemistry learning. The problem formulations presented are: (1) Is there an effect of religious value-based reaction rate teaching materials on student learning outcomes (2) Is there a difference in students' spiritual attitudes before and after being taught with religious

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value integrated teaching materials (3) Is there a relationship between improving student learning outcomes on reaction rate material with students' spiritual attitudes?

Research Method

This research uses quantitative methods because it correlates with statistical analysis of numerical data. This research is a quasi-experimental research with a Non-equivalent Control Group Design Pretest-Posttest design. The research group consisted of experimental and control groups. The experimental group is students who are taught using teaching materials for reaction rates integrated with religious values with a guided inquiry model, while the control group is students who are taught using teaching materials for SMA / MA student handbooks. The research design can be seen in the following table.

Table 1 Research Design

Group	Initial Test (*pre-test*)	Treatment	Final Test (*Post-test*)
Experiment	T_1	X_1	T_2
Control	T_1	X_2	T_2

Description:
T_1 : Score before treatment
T_2 : Value after given treatment (treatment)
X_1 : Given the guided inquiry learning model treatment with religious value-based teaching materials.
X_2 : Learning using high school chemistry textbooks / MA guided inquiry learning model

This research was conducted at SMA Negeri 1 Batang Kuis. Five classes were selected as the population and two of them were selected using purposive sampling technique as samples. The research instruments were in the form of objective tests of pretest and posttest learning outcomes and spiritual attitude questionnaire instruments. Before the multiple choice test instrument was used, it was first expertly validated by one of the chemistry lecturers, then tested on students who had studied reaction rate material, namely class XII to test the validity, reliability, and difficulty level of the items.

The data analysis technique was carried out with the normalized gain formula to see the improvement of learning outcomes and then carried out with the Mann Whitney U test with a significance level of 0.05, the Paired Sample T-Test test was used to determine the average difference between two paired groups and a simple correlation test to see the correlation between learning outcomes and spiritual values using the IBM SPSS Statistic 22 for Windows program. The procedure for conducting this research can be seen in the following figure.

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Figure 1. Research Procedure

Result and Discussion

Effect of learning outcomes

Based on the results of hypothesis testing with IBM SPSS Statistic 22 for Windows, it is known that the modified religious value integrated chemistry module has an influence on student learning outcomes. The learning outcomes taught using the module are higher than the learning outcomes of students taught using high school chemistry textbooks student handbooks on the subject of reaction rate guided inquiry model with sig. (2-tailed) is 0.037 smaller than 0.05 (5% error rate and 95% confidence level).

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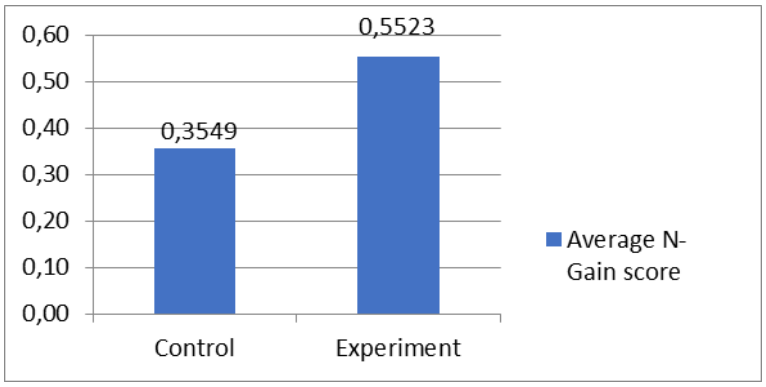

Figure 2. Comparison of Mean N-Gain of Learning Outcomes

So it can be concluded that the hypothesis is accepted. This means that there is an effect of religious value-based reaction rate teaching materials on student learning outcomes. This condition integrates that religious values in learning can encourage students' spiritual intelligence by increasing faith by realizing the order and beauty of the universe and glorifying the greatness of God Almighty so that students are more motivated and encouraged to expand their knowledge through the learning process. This is in accordance with Darmana's opinion (in Sundari, 2020), which states that the quality of the scientific level of chemistry itself will not be reduced by internalizing the spiritual aspects of teaching materials. It is even considered an appropriate effort because it can restore students' understanding that discoveries and all scientific phenomena are a form of God's power in their occurrence. In addition, the learning process is influenced by the guided inquiry learning model which requires students to be active and have creativity in solving problems and finding concepts.

This is in accordance with the opinion of Budiyono & Hartini (2016) who say that guided inquiry learning is a series of lessons that involve students' abilities through systematic, critical, logical and analytical investigations so that students are able to formulate their findings with the help of guiding questions, students do not just memorize information and will not have difficulty applying concepts to other problems. memorize information and will have no difficulty applying concepts in other problems. (Almuntasheri et al, 2016) have conducted research showing that the guided inquiry learning model is able to provide positive and significant gains in student learning outcomes. The results of this study are also the same as other research conducted by (Pratiwi et al., 2019) that there is an increase in learning outcomes in the cognitive, psychomotor and affective domains of students by applying guided inquiry learning based on authentic assessment in the very good category. With the incorporation of religious value-based teaching materials on the subject of reaction rates with guided inquiry learning models, the learning process is more interesting.

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Differences in students' spiritual attitudes using teaching materials integrated with religious values

Basically, SMA Negeri 1 Batang Kuis has inserted religious values to students through applicable regulations. Among them are literacy activities, namely 15 minutes before learning begins, students are required to read the holy book according to the beliefs of students, then proceed with prayer before the lesson begins, say greetings when passing teachers, students are required to perform zuhur prayers in congregation and other activities. It's just that the religious value has not been integrated in every subject matter in learning, especially chemistry subjects.

In this study, incorporating religious values in learning is done by using teaching materials in the form of modules that are integrated with religious values on the subject of reaction rates. Data testing with IBM SPSS Statistics 22 for Windows. From the test results obtained results for the experimental class with a Sig value. (2-tailed) 0.001 <0.05 so it can be concluded that the second hypothesis is accepted.

From the results of the study it can also be seen that there is an increase in students' spiritual attitudes before and after being treated with a religious value integrated chemistry module from 73.865 to 78.319 And the magnitude of the increase in students' spiritual attitudes can be seen from the N-gain score of 0.0419 or 4.1927% including in the low category so that it can be concluded that there is a difference in students' spiritual attitudes before and after being taught with religious value integrated teaching materials on the subject of reaction rates with an increase in the low category.

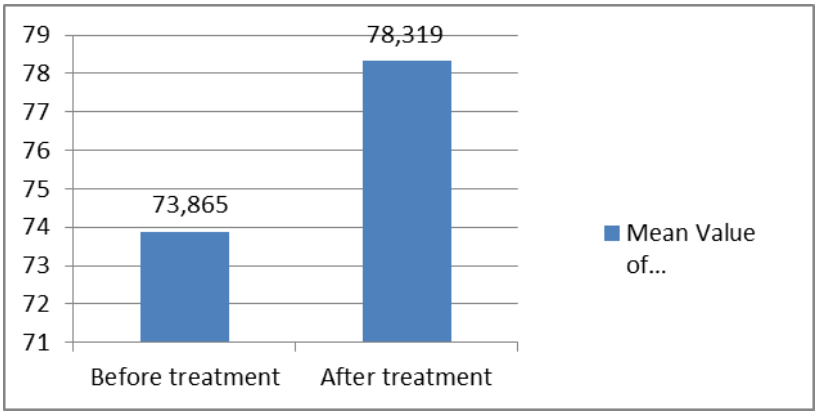

Figure 3. Comparison of Mean Values of Spiritual Intelligence of Experimental Class

Teaching materials for reaction rates integrated with religious values that have been modified can provide positive value to students. From the results of the tabulation of the spiritual intelligence questionnaire, the aspects of tolerance, gratitude and noble character are the most prominent aspects, in the sense that learning using teaching materials integrated with religious values gives a good response to the level of spiritual intelligence of students, so that in its implementation students not only get cognitive / knowledge aspects but can foster psychomorotics and spiritual intelligence so that students can implement it in everyday life. This is in accordance with Gioktaviani's research (2020) which states that when someone has the right beliefs and practices them, it is a necessity to form a person who is skilled, initiative,

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leadership, responsible, honest, disciplined, enthusiastic, tolerant and others. So, how much influence a person's religiosity has on his behavior and achievements in society. Similar research conducted by Irwandi (2022) states that integrating character-based learning of religious values can strengthen the character of religious attitudes of students. Therefore, the integration of religious values in learning can have a good impact on the religious character of students.

The Relationship of Improved Learning Outcomes to Students' Spiritual Attitudes

Based on the results of hypothesis testing with IBM SPSS Statistic 22 for Windows listed in table 4.8, the Sig. (2-tailed) of 0.005 is smaller than the significance level (0.005 <0.05), this shows that Ho is rejected, which means that there is a significant relationship between the learning outcomes variable and students' spiritual attitudes. It can also be seen that the Correlation Coefficient value of 0.461 is a range of values with an interval of 0.40 - 0.599 or is in the sufficient category.

From the results of this study, it can be concluded that students with good learning outcomes tend to have high spiritual values and conversely students with low learning outcomes have low spiritual values as well. This is in line with research conducted by Yusak in Gioktavian (2020) which states that religiosity has an influence on academic success. Individuals who have high religiosity will have high academic success as well. Therefore, individuals with high religiosity are more effective and persistent in facing difficulties and failures, especially related to solving life problems, especially in the world of education, they are more likely to achieve valuable results and get better results.

Conclusion

Based on the data obtained, the following conclusions can be drawn :

1. There is an effect of religious value-based reaction rate teaching materials on student learning outcomes in the form of differences in learning outcomes between experimental and control classes. Students taught using teaching materials for reaction rates integrated with religious values using guided inquiry learning models are higher than students taught using high school chemistry textbooks using guided inquiry learning models because Sig. (2-tailed) < α (0.037 < 0.05).
2. Modified reaction rate teaching materials can foster the development of students' spiritual attitudes.
3. There is a relationship between improving student learning outcomes on reaction rate material with the spiritual attitudes of students taught using teaching materials for reaction rate integrated with religious values because the price of Sig. < α (0,005 < 0,05).

Recommendation

1. This study shows that religious values have good results on student achievement and spiritual attitudes. Researchers suggest that religious values are always instilled in the attitudes, behaviors and mindsets of students and teachers and can be applied in the school and community environment.
2. For teachers, it is expected to be an input to effectively assess character and pay attention to the development of students' spiritual attitudes in order to produce students who have good knowledge and noble character.

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3. For researchers, they should further develop other variables, for example by measuring aspects of student motivation, the need to develop religious value questions according to the topic of discussion to be studied.

Acknowledgment
The author would like to thank the thesis supervisor who has directed and assisted this research.

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