The Implementation of Islamic Values Integrated Natural Science Learning in Secondary School

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Abstract

This study aims to analyze the implementation of science learning integrated with Islamic values at MTs Bumi Darun Najah. The focus of this research are: 1) learning implementation processing 2) communicative teaching and learning process 3) students' responses 4) learning activities 5) learning outcomes. The subjects in this study were students of 7th grade MTs Bumi Darun Najah. The object of this research is 1 (one) female science teacher. Data collection techniques in this research are observation, interview, and documentation. Data analysis using qualitative descriptive analysis. The results showed an analysis of the implementation of integrated Islamic value learning at MTs Bumi Darun Najah from all aspects of integrating with Islamic values. The aspects include aspects processing the implementation of learning integrated with Islamic values, communicative teaching and learning processes integrated with Islamic values, learning activities integrated with Islamic values, student responses integrated with Islamic values, and learning outcomes integrated with Islamic values. The results of the research conducted show that MTs Darun Najah students in learning integrated Islamic values in natural science learning are observed in all aspects. Suggestions for further research include Islamic value integrated science material and Islamic value integrated teaching materials.

INTRODUCTION

Education is an activity carried out by individual, group or government institutions to improve the intellectual, emotional and spiritual quality of the nation's next generation (Tanu 2019). The world of education should harmonize intellectual, emotional and spiritual levels to reduce the moral crisis and create the next generation that builds and raises the nation and state. The cause of the moral crisis experienced by the Indonesian people is due to the misalignment of intellectual, emotional, and religious learning levels. The lack of planting religious values in learning makes the morals of the next generation not focus on Allah SWT.

The learning process should have the purpose of glorifying Allah SWT as the creator and determinant of the universe (Maarif 2015). From this explanation, the Quran letter Al-Alaq verses 1-5 "Read by (mentioning) the name of your Lord who created. He has created man from 'Alaq. Read, and your Lord is the most Generous. Who teaches man with the pen. He teaches man what he does not know". Islamic or religious values according to the Ministry of National Education are behaviors that are obedient in carrying out religious teachings and
avoiding religious prohibitions. Mutual respect for the teachings of other religions and coexistence with adherents of other religions.

Value integration in education through learning is a way of mentoring through education that applies Islamic values in everyday life including religion, customs, habits and aesthetics towards the formation of students who have a high level of religion, stable emotional control, noble character, and insight that is carried out for individuals, others and the nation (Ajmain and Marzuki 2019). Starting from an integrative mindset, namely harmonizing worldly affairs with akhirot. In learning, integrating material with Islamic values can be applied using an interdisciplinary approach, namely by combining the content of the arguments of the Al Quran and hadiths into science learning material to produce a more detailed, flexible and universal meaning.

The integration of Islamic values with science material is based on the Quran and hadith. Science subjects are explanatory of the Al Quran (Simanjuntak, Zahara, and Nasution 2023). Science or Science has the understanding that as an explanation of the Al Quran and the proposition (Yanti 2022). Various verses emphasize that humans convince themselves of religion by tadabur and tafakur (Q.S. Al-Anbiya, [21]:30). Science is not a separate part of religion, science is an integral part of Islam (Zahroh 2020). The Quran explains that science is interrelated with all human life and part of religion. Science teaches humans about how everything in nature is managed, performs a variety of methods, and produces products to fulfill life (Imania and Bariah 2019). In addition, religion teaches humans about the value system. Religion teaches the value of piety towards the creator and the value of kindness towards fellow creatures of the creator. Therefore, contemplating the universe to have inspiration and increase knowledge and increase devotion to God Almighty. Islamic assessment according to science there are several values which include hospitality in the words of the Qur'an (Q.S. Al Anbiya': 107), trustworthiness, (Q.S Al Ahzab: 72), da'wah (Q.S Fussilat: 33), tabsyir (Q.S Al-Baqarah 119), worship (Q.S Adz dzariyat: 56 Ali Imran 190-191) (Amri M Nurhadi, Rasyidin Al, and Imran Ali 2017).

Integration of Islamic values in science learning materials is needed to perform normative actions in determining educational goals as the final result of Islamic values: (1) knowledge of diversity is developed in depth and expanded understanding of Islam in various aspects of life related to the universe (2) Students have enough skills to accommodate (3) improve the skills of students to appreciate and glorify Islamic knowledge more than other knowledge (4) increase imaginative experiences that cause an increase in new ideas and ideas that develop and have the function of being a barrier to Islamic norms (5) help students think logically with a conceptualized and pursued hypothetical thinking process (Muspiroh 2013).

One form of integration of Islamic values applied at MTs Bumi Darun Najah. In fact, what researchers found based on the results of observations at MTs Bumi Darun Najah is integrating general learning associated with Islamic concepts. MTs Bumi Darun Najah is a school under the Bumi Darun Najah Foundation. It is a school that implements a vision and mission integrated with Islamic values, namely: the formation of a smart Muslim generation with religious and moral character based on the Al Quran. in (Q.S Al-Mulk 3-4) "who has created the seven heavens in layers, we have never seen in the creation of the Most Gracious God something unbalanced, so look again and again. Do you see anything unequal?. Then look again and your vision will return to you without finding any defect and your vision is in a state of distress. In the verse, there is an understanding of the balance of the ecosystem. In life, an ecosystem is a condition where the interaction between the components within it takes place in harmony and balance. Ecosystem balance has a significant impact on the harmony and welfare
of human life and other creatures. For example, rainwater falls then grows a kind of weeds, after the weeds grow and decay then eaten by worms, worms that live hollowing out the soil so that the soil has enough nutrients, the soil will have a cavity for water to enter it, as a result plants become fertile. Animals will eat the plants that grow such as goats, cows and others. These animals are utilized by humans. From the explanation of the facts in the field above, this research is more focused on how exactly the implementation of the integration of Islamic values in science subjects is carried out at MTs Bumi Darun Najah. So in-depth research will discuss "Analysis of the Implementation of Science Learning Integrated with Islamic Values". Through several aspects which include: processing of learning implementation, communicative teaching and learning process, student response, learning activities, and learning outcomes. The importance of this research is to find out the learning of integration of Islamic values carried out at MTs Bumi Darun Najah so that we can find out the learning in the subject and how students who follow the learning.

METHODS

The type of research used in this study uses qualitative phenomenology which has the ultimate goal of opening an event that has never happened, is unique and different from events that have occurred in life. Experiences that are different and do not occur in general such as changes in behavior, ways of thinking or one's experience (Rachman 2019). The research subjects were students of MTs Bumi Darun Najah. The research subject was one class consisting of thirty-four students using purposive sampling technique with the research setting at MTs Bumi Darun Najah. The implementation of Islamic value integrated science learning includes several aspects, namely learning implementation processing, communicative teaching and learning process, student responses, learning activities and learning outcomes.

Data collection techniques used to collect research data include observation, interview and documentation techniques. The observation process includes stages, namely planning and implementation. Planning in the form of observation grids which include the vision and mission and curriculum and how the learning process is carried out. The implementation of observation is carried out by seeing everything that happens at the research site, understanding and observing what happens at the research site, writing and immortalizing what happens at the research site. At the observation evaluation stage, the data obtained at the time of planning must be synchronized with the data obtained after implementation. The interview planning process includes: preparing who will be the source, the interviewees of this research are the head of curriculum, natural science teachers and MTs Bumi Darun Najah students and preparing questions that will be asked in the interview. Documentation in this study is in the form of learning planning documentation such as syllabus and lesson plans. Implementation documentation includes photos of the learning process, photos of student group activities, photos of student presentation activities and evaluation documentation which includes daily test results.

Checking the validity of the data using the data credibility test in qualitative research, the data can be declared credible if there is a similarity between what the researcher reports and what actually happens to the object under study in the field. To strengthen the data obtained in the field, the researchers used the data triangulation method. At the stage of collecting information, triangulation is divided into 3 (three) methods, namely source triangulation, technique triangulation, time triangulation. Therefore, researchers use triangulation, namely technical triangulation. Triangulation technique is a way of collecting data from the same source but in different ways (Adhimah 2020). From the triangulation
technique, researchers combine observation, interview and documentation techniques and then combine them into one to get a conclusion. Triangulation techniques are carried out by collecting different data to produce data from the same data source. Researchers use observation, interviews, and documentation for the same data source simultaneously (Alfansyur and Mariyani 2020).

Data analysis techniques are carried out through 3 (three) stages, namely collecting data, drawing conclusions from data, verifying data, simplifying data (Sukma 2020).

![Data Analysis Technique](image)

Figure 1: Data Analysis Technique

The process of focusing, researchers set a focus in order to have more focused data results. Data display is a presentation of selected data then arranged in a framework so that it can be easily understood. Data presentation is done by forming narrative text. Displaying data will make it easier to understand the data that has been obtained and make it easier to plan what will be done. Verification is done to conclude something that has happened or any new findings that have not happened.

RESULTS AND DISCUSSION

The results of research on the implementation of natural science learning integrated with Islamic values at MTs Bumi Darun Najah include the results of observations, interviews, and documentation.

**Tabel 1. Observation Results**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Component</th>
<th>Observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processing of learning</td>
<td></td>
<td></td>
</tr>
<tr>
<td>implementation</td>
<td>1. Introduction</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>2. Core</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Closing</td>
<td></td>
</tr>
<tr>
<td>Communicative teaching and learning process</td>
<td>1. FAVORING THE TRUE MEANING</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>2. THERE IS INTERACTION</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. COMPETENCY ORIENTATION</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. FIND THE RULES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. MEANINGFUL TEACHING MATERIALS</td>
<td></td>
</tr>
<tr>
<td>Learner response</td>
<td>1. RESPONSE ASPECT</td>
<td>√</td>
</tr>
<tr>
<td></td>
<td>2. REACTION ASPECT</td>
<td></td>
</tr>
<tr>
<td>Learning activities</td>
<td>1. TEACHER CONDUCTS ACTIVITIES</td>
<td>√</td>
</tr>
<tr>
<td>Learning outcomes</td>
<td>ASSESSMENT OF LEARNING OUTCOMES</td>
<td>√</td>
</tr>
</tbody>
</table>
Based on Table 1, the results of the observation show the results of implementing learning processing at the planning stage include the vision and mission of the school curriculum integrated with Islamic values. At the preliminary implementation stage, an explanation of the objectives integrated with Islamic values is carried out. At the stage of science learning materials integrated with Islamic values. As well as providing examples in everyday life, the evaluation provides core points to be applied in everyday life.

The communicative teaching and learning process is carried out with an active interactive involving teachers and students by discussing material with Islamic values and how to apply in everyday life. Learners have a fairly good response rate, a sense of curiosity in learning Islamic value integrated science learning material can be seen from the enthusiasm of students in participating in learning. The activities of students in daily life reflect the implementation of science learning integrated with Islamic values. This proves that the learning outcomes of students in the implementation of natural science learning integrated with Islamic values are quite good.

**Table 2.** Interview Results of Curriculum Waka, Science Teacher and Students

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Questions</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Implementation Process</td>
<td>1. Planning</td>
<td>1. Planning includes the vision, mission and curriculum of the school with integrated Islamic values</td>
</tr>
<tr>
<td></td>
<td>2. Implementation</td>
<td>2. In the learning process of natural science material integrated with Islamic values</td>
</tr>
<tr>
<td>Communicative Teaching and Learning Process</td>
<td>How is the communicative teaching and learning process?</td>
<td>Discussions with students relate the material to the Al Quran with examples in everyday life, for example the teacher explains about ecosystem material. Ecosystem is a relationship of mutual help for fellow living things with their environment. Presentation and question and answer.</td>
</tr>
<tr>
<td>Learner Response</td>
<td>How did the learners respond?</td>
<td>Learners have enthusiasm and curiosity, respond to.</td>
</tr>
<tr>
<td>Learning Activities</td>
<td>What Islamic value integrated science learning activities are carried out by students?</td>
<td>Learner activities include discussion of Islamic integration material, linking material with the Al Quran with examples in everyday life, for example. The teacher explains about ecosystem material. Ecosystem is a relationship of mutual help for fellow living things with their environment.</td>
</tr>
<tr>
<td>Learning Outcomes</td>
<td>What kind of learning outcomes?</td>
<td>Learning outcomes include the application of Islamic values in everyday life, for example, the application of mutual help to other creatures in the school environment, watering plants.</td>
</tr>
</tbody>
</table>

Based on Table 2, the results of the interview show that the processing of learning implementation includes planning, namely the vision and mission of MTs Bumi Darun Najah integrated with Islamic values, vision: the formation of a smart, religious and moral...
Muslim generation based on the Al Quran and Sunnah. Mission: educating a smart Muslim generation through developing various student potentials, fostering maintaining and developing akhlakul karimah in the social life of the community, instilling student personality, noble traits and behavior in building future generations, forming students who have technology-based interests and talents and memorizing the Al Quran, producing students who excel in all fields based on the Al Quran, forming the character of students who have technology-based interests and talents and memorizing the Al Quran. In an educational institution there is a curriculum to set standards for success. At the stage of the process of implementing science learning integrated with Islamic values, science and technology material is integrated with the arguments of the Al Quran and hadiths such as in Q.S Thaaha verse 53 "who has made for you the earth as an expanse and who has made for you on the earth a path, and sends down from the sky rainwater, so we grow with the rainwater the types of plants that vary. At the stage of the communicative teaching and learning process the teacher conducts questions and answers or discussions about material integrated with Islamic values. The response of students is very enthusiastic and curiosity about Islamic value integrated science learning is quite good, seen from the activities of students who follow Islamic value integrated natural science learning well and is shown by the learning outcomes of students who are quite good.

Based on the results of the study, the following discussion was conducted:

1. Management of Learning
   a. Introduction
      Introduction is the initial activity carried out during learning, activities to check preparation, provide motivation, explain learning objectives, and explain the benefits of increasing faith (Sulfemi 2019).
   b. Implementation
      At this stage all activities are carried out according to plan, if all preparations are mature and have mastered the material well, the teacher presents the main material and describes the material. In this lesson the teacher explains about ecosystem material. Ecosystems are inseparable reciprocal relationships between living things and their environment. Ecosystems are a whole and comprehensive unity between all elements of the environment that influence each other (Annisa 2019). The biotic component consists of living things while the abiotic component is a support for the sustainability of living things such as water, air, sun and soil. Allah SWT says in Q.S. Thaaha verse 53 which means "making for you the earth as a stretch and who has made for you on the earth a path, and sends down from the sky rainwater, so we grow with the rainwater different plants". The teacher also integrates Islamic values in Q.S. Thaaha verse 53 which means that the earth was created for the life of living things. Allah SWT sends down rainwater then forms a fast flowing river, rainwater is also able to grow a variety of different plants. The verse emphasizes the interaction of abiotic components with biotic components. This is one of the ecological phenomena mentioned in the Al Quran.
   c. Closing and Evaluation
      Evaluation is the final activity in learning carried out by the teacher by giving conclusions or key points in learning (Magdalena, Fauzi, and Putri 2020). Implementation that can be practiced by teachers through material content, steps and learning methods. From the above understanding, it explains that implementation has three aspects which include: planning, implementation, and evaluation.

2. Communicative Teaching and Learning Process
   Communicative is a communication, interaction and develops language (listening, reading, writing, speaking) communication activities, namely social interaction between
teachers and students, and students and students (Tajuddin 2017). Communicative between teachers and students includes greeting students at the beginning of learning and ensuring students that learning is ready to begin. Communicative in learning is also seen from the way the teacher presents learning materials clearly and firmly. The way the teacher speaks is in the form of tone, intonation, and expression that is straightforward and looks at all students and gives meaning to students (Tambak 2014). The learning strategy also involves students such as students being asked to form their own groups and then deliver material such as presentations.

Communicative is a tool by which citizens can participate in democracy (Aristotle) Communicative activities carried out by students with students include group discussion activities, namely students divided into several groups (Muttaqien 2023). Each group gets a different type of ecosystem then students discuss the ecosystem material, then after understanding the material, students are asked to present it in front of the class. At this stage the teacher tries to explain the material and revive interest and enthusiasm for learning to apply what is learned in everyday life. The communicative approach is a learning system that emphasizes aspects of communication, interaction and develops linguistic competence and skills (Muradi 2021).

3. Learner Response
There are two aspects in the learner's response which include the response aspect and the reaction aspect. The response aspect is the response of students in the form of students' curiosity about learning material (Hamidah and Haryani 2018). Students are enthusiastic to learn about material that is integrated with Islamic values, namely ecosystem material. In an ecosystem, the food source of a living being comes from other living things. It is explained that plants function as a source of food in Q.S. Abasa verses 24-32 which means "humans should be grateful for their food. Indeed, we really have sent down water as well as we and grass for your happiness and for your livestock" for example rats eat rice then rats are eaten by snakes. This process is called the food chain. The food chain is a non-existent food chain. Even the strongest and largest creatures of the food chain, for example snakes, still continue to connect the food chain where the carcasses of these animals will become mineral elements in the soil. In responding to the material, students were eager to give examples of other food chains.

The reaction aspect is the learner's response including learner satisfaction in understanding the material, as well as the fulfillment of expectations and curiosity through asking the teacher. (Magdalena et al. n.d.) Satisfaction is important in learning. The value of learner satisfaction is one of the benchmarks of the success or failure of the learning process (Harahap et al. 2022).

Explains that student response is the response of students during the process of teaching and learning activities, while according to (Fitriani, Harahap, and Manurung 2018) response is equivalent to the meaning of response, reaction, impression and so on. The response of students is the provision of suggestions made by students to teachers to implement innovative learning processes such as the environmental learning approach. response is a behavior that is influenced by responses and stimuli from the environment (Studi et al. 2019).

4. Learning Activities
Learning activities are joint teaching and learning activities carried out by students and teachers using learning media, learning tools, and learning resources (Ismawan, Irfansyah, and Apriyani 2018). The activities carried out in learning activities include:
a. Listening activities are listening to material that is integrated with Islamic values. This can be in the form of students listening to the teacher’s explanation in delivering material related to the relationship between abiotic and biotic components integrated with Islamic values.

b. Visual activities, namely student activities in viewing videos about examples of ecosystems. Observing what happens in the video about the ecosystem and paying attention to the pictures given by the teacher in the form of pictures of the arrangement of several food chains.

c. Writing activities, namely writing the information explained by the teacher and working on tests given by the teacher in the form of tasks to summarize different sub-materials in each group and write down all the food chain arrangements contained in the pictures given by the teacher.

d. Oral activities, namely students presenting in front of the class to explain sub-materials, express opinions, and ask questions to other students.

e. Emotional activities, namely the feelings of students including nervousness during presentations, calmness in dealing with differences of opinion, and enthusiasm in providing questions or answers.

Through a variety of learning activities, learning becomes fun. It is hoped that Islamic values can be embedded in students and applied in everyday life. Learning activities are activities carried out through thought or energy that have a purpose and make better changes and gain knowledge and experience (Oktiani 2017).

5. Learning Outcomes

Factors that affect learning outcomes include internal factors and external factors. Internal factors are factors that come from a person himself, in this case, for example students (Manajemen 2013). In students regarding the talents of students and the intellectual responsiveness of students. External factors are factors that are influenced by the surrounding environment, for example the family and school environment (Belajar et al. 2019). The family is the most important factor supporting success because the family is a place to complain, while the school is a place for students to seek knowledge. Educators contribute to the success of students' learning. The teacher is a facilitator in providing learning. The teaching and learning process is said to be successful when students are able to apply learning in everyday life and students are able to understand learning and achieve Minimum Completeness Criteria. The Results of the study (Madrasah, Sahabat, and Kota 2021) explained that the integration of Islamic values is a means to improve the integrated science learning outcomes of MTs Sahabat Cendikia Kota Ternate students. The final achievement in the form of biology learning outcomes of integrative class students or experimental classes in 7th grade was significantly better than the control class. The weakness in the study is that it does not explain in detail related to science material integrated with Islamic values. What distinguishes it from the research that I will do is that there is an analysis of the implementation of integrated science learning of Islamic values.

CONCLUSION

Based on the analysis of the data that has been obtained, it can be concluded that the implementation of integrated learning of Islamic values at MTs Bumi Darun Najah is observed and in learning activities carried out by students discussing ecosystem material in Islamic views and can integrate Islamic value learning between teachers and students. From the results of this
study, the implementation of science learning integrated with Islamic values at MTs Bumi Darun Najah is included in the good category in integrating Islamic values.

SUGGESTION
Future researchers are expected to make this research a reference for conducting similar research related to the implementation of natural science learning integrated with Islamic values. The shortcomings of this study are that there are no notes on Islamic values integrated science materials and Islamic values integrated natural science teaching materials.

ACKNOWLEDGMENTS
The researcher would like to thank the parties who have helped and provided support for this research including the supervisor who has provided advice and motivated the researcher, then the head of MTs Bumi Darun Najah who has given permission for researchers to conduct research at MTs Bumi Darun Najah and the science teacher of MTs Bumi Darun Najah who has agreed to be the object of this research.

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doi: 10.15408/a.v1i1.1129.


