**Sains-Religion: Analysis of Learning Needs based on Religious Values in Science Learning**

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**Abstract.** Religious value is an entrenched value as a form of Indonesian local wisdom. This value is integrated as a religious character in the K-13 characters’ development program. With these things learning in accordance with the curriculum everywhere students use confidence in the greatness of God Almighty based on the beauty and regularity of the nature of His creation, but in fact the learning process is indirect. The alternative solution is to develop knowledge that is integrated with religious values. Before building materials that make it possible to conduct research for these initial ingredients. The purpose of this study was to describe the integration of basic knowledge and comfort of science, the application of integrated learning, learning materials available for learning, and the values of religious studies. The type of research is descriptive research method. As the object of the study consisted of teachers, syllabus and teaching materials, and students of grade VI SD / MI. The instrument for collecting data consists of various interview guides, science syllabi and learning material documents. Research data were analyzed with descriptive statistics. Merging data can be stated as the results of this study are: 1) Learning has not integrated religious values directly, 2) Religion values are still applied only at the beginning and end of learning.

**Keywords:** Religious; Learning; Need analysis; Science; Science-religion.

1. **Introduction**

The values in learning began to be strengthened by the government. Value is part of indigenous knowledge. One of the values developed by the government is Religious Value. Natural Sciences learning is scientific learning. Character can be accustomed through science learning [1]. Science learning is related to various aspects, namely Science, Technology, Environment and Social, which is abbreviated as SETS [2]. Learning science is not only to increase knowledge, or to develop technology. Learning science can be developed to improve children's character through good learning. [3], [4]. The aim of Indonesian education can be seen from the Minister of National Education Regulation No. 20 of 2003 concerning the National Education System, Article 3, namely developing the potential of students to become faithful and fearful people of God Almighty, noble, healthy, knowledgeable, capable, creative, independent, and become a democratic and responsible citizen. This goal instructs that every learning must also bring students to become human beings with character and character internalization of intelligence in thinking, appreciation in the form of attitude, and practice in the form of behaviour needs to be realized in the interaction with God, himself, among others, and his environment [5].

Learning is expected to improve student religiosity. Religious is instilled because it is the noble values of the nation which are synthesized into the first precepts of Pancasila. Value is given by
choices of beings acting on rational principles, both prudence and morality of science are comparable to science which also includes 5 domains, namely knowledge, process of science, creativity, attitude, application & connection[6], [7]. Natural science has an important role in the application of value to students through 4 approaches namely Science, Environment, Technology and Social. Many values are rooted in Indonesian society. This value cannot be separated from the science itself. One of them is religious value. But in fact the religious value has not been embedded in learning. Values are only applied at the beginning and end of learning, namely during prayer and worship[8].

The paradigm shifts in learning in the 21st century, especially in the 2013 curriculum, teacher centered approach to student centered makes students' learning processes change [9]. Students are given the freedom and breadth of learning in accordance with their interests, talents, and needs so that students can measure for themselves the extent of their understanding and mastery of the material. Selection of appropriate learning resources is crucial. Learning resources will refer to any person or material with content or instructional functions that are used for formal or informal teaching / learning purposes [10]. Learning resources may include, but are not limited to, printed and non-printed materials; audio, visual, electronic and digital hardware / software resources; and human resources. The use of learning resources that are good and contain elements of religious values will certainly get two positive things, namely material understanding, learning independence and can increase knowledge of religious values. Hence, this study aims to analyze the need for the development of science learning resources based on religious values.

The rest of this paper is organized as follow: Section 2 describes rudimentary. Section 3 presents the proposed research method. Section 4 presents the obtained results and following by discussion. Finally, Section 5 concludes this work.

2. Rudimentary

Value is an agreement that comes from tradition and a form of hope of obtaining a religious sense of security is a person's attitude towards God, where the person is always obedient to the teachings of his religion. Religious values can be taught to students in schools through some religious activities. Religious activities will bring students in school to religious behavior [8]. There are 12 religious sub-values based on the guidelines for character development from the Ministry of Education and Culture namely Peace Love, Tolerance, Respect for different religions and beliefs, True Establishment, Confidence, Cooperation between adherents of religions and beliefs, anti bullion and violence, Friendship, Sincerity, Not imposing the will, Loving the environment, and protect the small and marginalized [11]. Books are learning resources that are widely used by teachers. The book is a written material that contains knowledge or the thoughts of the author. The book contains information written by someone so that what they understand can be understood by their readers. Textbooks in learning or textbooks are termed textbooks. Textbooks are books that provide instructions in a lesson, especially in school. Textbooks are an important part of teacher's professional knowledge; and also to adjust the teacher's instruction in learning [12]. Reading interest is a condition for someone to do reading activities due to certain factors. Intertest in reading is important for students to increase their knowledge [13]. Developing interest requires 3 aspects, namely feeling, value, and knowledge [14].

3. Research Method

Research conducted can be included in the type of descriptive research. Descriptive research is a research method that attempts to describe and interpret objects as they are. In general, descriptive research conducted has two main objectives, namely to systematically describe the facts and characteristics of the object under study precisely. In this initial research there were three objects that were investigated, namely class teacher, syllabus and teaching materials for elementary school science. and elementary school students in grades VI and V. Teachers of grade V and VI elementary school classes are used to obtain information about the application of integrated science learning in schools. There were eight class teachers from 4 elementary schools / MI who were interviewed to get
this information. Syllabus and teaching materials are the second object to get information on the integration of science learning materials and their application. On the other hand, students in three primary schools in Srumbung sub-district were used to obtain information on the needs of IPA books based on religious values. In the early stages of the study the number of students involved in gathering this information was 14 people.

Data collection techniques used in this preliminary study consist of three parts, namely interviews, documentation, and questionnaires. Interviews are used to obtain data about the implementation of integrated science learning by class teachers. The instrument used is the interview guide sheet. Documentation is used to obtain data about the integration of science learning materials and their application. The documents used include syllabus, integrated science books, and sixth grade science worksheets. The instrument used is the document assessment sheet. Questionnaire is used to determine the level of need for science books in the research subject. Data collected through appropriate instruments were analyzed using descriptive statistical analysis techniques. Descriptive statistics are statistics that serve to describe or give an overview of the object under study through sample or population data as they are. In this descriptive statistic without analyzing and making conclusions that apply to the public. There are several presentations of data in descriptive statistics that can be used such as: ordinary tables, frequency distributions, graphs, and explanations of data groups through mode, median, average values, group variations and standard deviations. This research will later be used as a basis for research development learning resources for science books based on religious values.

4. Result And Discussion

The first result of the preliminary study is the implementation of integrated science learning. Data collection techniques and instruments used for each interview and interview instrument. The interviews were conducted with 6 class teachers consisting of 3 class V teachers and 3 class VI teachers. The interview component about the application of integrated science learning consists of 6 aspects, namely: 1). the views of science teachers on science learning 2). implementation of science learning, 3). how to integrate science and character values in learning, 4). Implementation of religious values in learning 5). problems faced in implementing science learning, and 6) learning independence and interest in reading science books. From the analysis of the interview results 6 results can be stated.

4.1. Science Learning Needs Analysis from teacher

The first result 66.67% of science teachers stated that science learning was easily understood by the majority of children, while 33.33% of teachers stated that science learning still had constraints in the form of facilities and infrastructure. The second result all science teachers said that they had applied the science learning well, but the implementation of science learning still had some students who were still lagging behind because of difficulty understanding the material. Adequate facilities and infrastructure are a form of human needs, means and means of learning become a necessity at the level of intellectual needs[15]. To get maximum learning results, the needs must be met. Facilities and pre-facilities that are not appropriate cause learning has not been maximized. From the results of the observations, it was found that the book used was still using the KTSP book which had been long and had not been updated.

The third result, as the opinion of Trilling said “…we must all learn to apply tolerance and compassion for different identities and value of other” [16]. All teachers stated that the integration of character values can be done by adjusting the material. Character cannot be fully applied to certain material but needs to be adapted to the material. By adjusting the characters with the material, it is expected to improve the achievement of learning objectives.

The fourth result is learning usually integrates religious values only at the beginning and end of learning. [3]. Then obtained data that 33.33% of teachers stated that they had applied religious values
through religious activities and 66.67% integrated religious values spontaneously without planning, and all teachers stated that religious values could be at the beginning and end of learning in the form of prayer. Even so, the goal of learning iPA is to bring students to be more confident in God, so religious values should also be integrated into learning [11]. By integrating science learning with religious values found in the guidelines for character development, learning not only leads to cognitive, but also affective.

The fifth result is very little difficulty in learning science because children are easy to understand, but for some material it needs to be deepened. Children easily learn the science because the science itself conducts the learning process contextually. Science learning usually uses discovery learning models. Discovery learning models are effectively used to improve science skills in general. This model is one type of model that is systematically arranged, so that students can learn independently without teacher domination in learning (Khabibah, Masykuri, & Maridi, 2017). Contextual learning has a positive influence on children's understanding of science materials

4.2. Analysis of Science Learning needs from student conditions

Furthermore, to deepen the results, a questionnaire was distributed to 28 students at one school. The questionnaire was given to 14 grade V students and 14 class VI students. The following are the results of obtaining data on students' interest in reading described in Figure 1.

![Figure 1. Student interest reading diagram](image)

Interest in reading important books in the process of child development, especially reading accompanied by parents, parents play an important role in developing children's reading interest [13], [17]. Based on the data above, the results showed that the interest in reading children is still low, 56% of children stated that it was not appropriate if they preferred reading compared to watching TV or playing games. This is supported by the role of low parents in supervising the child's learning process at home. Parental data can be seen in Figure 2 below.
Here is the acquisition of parental role data. Where 57% of children stated that their parents rarely helped when they studied at home. Then 36% stated it was appropriate, and 7% of students stated that their parents helped in their learning process while at home. The low role of parents causes the need for a medium so that children independently increase their reading interest. Further, we analyzed the data of integrating religious values on natural science learning and natural science learning resources and the needs of natural science learning resources. We obtain results as in Figure 3.

From Figure 3, it can be concluded that:

a. Integration of science and religious values in learning
b. There needs to be an integration of religious values with natural science learning
c. There needs to be an integration of religious values in the IPA book
d. Need an interesting science book to read
e. Independent learning can be done by reading a book
f. The Science book was accepted happily

The diagram above illustrates that the integration of science and religious values is still low, 93% of students state that their science learning has not linked the value of religious values, as well as the science book. Almost all students stated that they would like to receive an IPA book, but they preferred playing games or watching TV than reading. 57% of students said that their parents were not involved in their learning, 36% said they were less involved, while 8% said their parents were involved in the science learning process.

Based on the data in Figure 3 above, the results are obtained that science learning is easily understood by children even though there is still a basis. These tools are facilities and infrastructure. Referring to the goals of the government that want to be in development, but in the learning process has not included religious values. Religious value is the first value in character development. The teacher is still spontaneous and only at the beginning and at the end of learning. Interest in reading low books is a problem too, coupled with the role of parents who are little in guiding. So, it is necessary to develop learning that can be used to increase children's interest. With this learning, the teacher can easily adjust lessons with religious values, so it is not only done spontaneously

5. Conclusion

The conclusion of this study is the integration of religious values is still not done in the sample schools, the interest in reading books is still lacking even though they like it when they get the IPA book. Parents less involved in student learning activities are also findings in this study. Based on the problem of the results of the research, it is necessary to follow up in the form of developing a learning resource that contains religious values with a design in such a way that it can increase students' reading interest.

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