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Original Article

Analysis of the Scientific Approach to Islamic Religious Education Learning

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Abstract

This study aims to analyze the scientific approach in Islamic religious education learning. The type of research used in this study is qualitative research. This study was conducted at SMP N 23 Rejang Lebong with the subjects of this study being all Islamic religious education teachers and students of SMP N 23 Rejang Lebong. Data collection techniques used were interviews, observation, and documentation. The data obtained were analyzed using data reduction, data display, and conclusion drawing/verification. The results of the study indicate that teachers' understanding, implementation, and evaluation of Islamic religious education learning using the scientific approach are good. Teachers' understanding of the scientific approach is evident from their knowledge of the steps and principles of the scientific approach. The implementation of learning using the scientific approach carried out by teachers is also in accordance with the steps of the scientific approach. Teachers observe students regarding what they will do, ask if there is a problem or there is material that is not clear, manage the class such as raising problems, asking students to explain what they understand, providing feedback, concluding and finally making connections to everyday life. The assessment or evaluation process in the scientific approach carried out by teachers has used authentic assessment where teachers make assessments on cognitive, affective and psychomotor aspects.

Keywords: Teacher Competence, Scientific Approach, Islamic Religious Education Learning.

Introduction

Education is basically an effort to help students develop all their potential to become human beings who have complete skills, so that with these skills they can properly live and face all life's problems. More clearly the purpose of education can be found in the Republic of Indonesia Law No. 20 of 2003 concerning the National Education System which states that education is aimed at creating a learning atmosphere and learning process so that students actively develop their potential to have spiritual religious strength, self-control, personality, intelligence, noble morals, and skills that are owned by themselves, society, nation and state.

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In implementing learning activities, educators are not only required to master the subject matter, strategies, and teaching methods, and to utilize media and learning tools. They must also create situations and conditions that allow teaching and learning to proceed smoothly according to plan and achieve the desired goals. In the learning process, educators play a crucial role in determining the quality of the learning process. They must consistently create a conducive atmosphere within the educational environment and perform their duties in the classroom to the maximum to achieve effective learning (Dini, 2021).

An effective learning process also enables optimal learning outcomes. However, many still consider the learning process, particularly in Islamic religious education, to be uninteresting and even trivialize it. This can be influenced by several factors, such as an education system that lacks material on adab (traditional manners) and divine attributes, educators' inaccurate strategy and method selection, a monotonous teaching style, and a lack of mastery of religious theory and practice. Educators, with their knowledge, are not only able to provide a broad overview and understanding of religion to their students but also can apply their knowledge in their daily lives (Zulfirman, 2022).

Meanwhile, the meaning of Islamic Religious Education learning according to Muhaimin (2020) is an effort to enable students to learn, need to learn, be motivated to learn, want to learn, and be interested in continuously studying Islam, both to learn how to practice religion correctly and to study Islam as knowledge. Islamic Religious Education learning can actualize what is contained in the Islamic religious curriculum as a comprehensive student need that results in several changes in student behavior in the cognitive, affective, and psychomotor domains (Holik, 2021).

The scientific approach is an approach used in learning through the scientific process. The scientific process is defined as a learning process carried out by students using their reasoning based on existing facts. In this learning process, students conduct it themselves, thus gaining direct experience. Through this approach, students are expected to think analytically and systematically, enabling them to solve the problems they face (Pohan, 2020). Therefore, the learning process using a scientific approach aims to prepare students for independent living and to solve problems they will face now and in the future. Therefore, through learning activities using a scientific approach, students are not only able to master theoretical knowledge but are also able to apply the theories they have learned in everyday life (Rahmi, 2017).

Literature Review

The scientific approach in education emphasizes a systematic learning process based on observation, experimentation, reasoning, and reflection, enabling students to actively construct knowledge. This approach aligns with the demands of the 2013 Curriculum (K13), which emphasizes *learning by doing*, *problem-solving*, and *critical thinking*. Several previous studies have examined the application of the scientific approach to various subjects, including science and mathematics, with a focus on improving critical thinking skills and conceptual understanding (Suhardi, 2018; Wulandari, 2019). These studies indicate that the scientific approach is effective in increasing learning motivation, student engagement, and material mastery, although studies on non-formal subjects such as Islamic Religious Education (PAI) are still relatively limited.

Previous studies on Islamic Religious Education (PAI) learning generally emphasized lectures, question-and-answer sessions, and the instilling of moral values without much integration of the observation, experimentation, or reflection stages characteristic of the

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scientific approach (Ahmad, 2020; Fitriani, 2021). This indicates limitations in previous literature, particularly in the context of implementing a scientific approach to enhance religious understanding and internalize spiritual values.

Unlike previous studies, this study emphasizes a comprehensive analysis of the scientific approach in Islamic Religious Education (PAI) learning, from observing, questioning, reasoning, experimenting, to communicating *learning* outcomes. Thus, this study provides a new perspective on how the scientific approach not only improves understanding of Islamic Religious Education concepts but also fosters critical thinking skills, creativity, and the application of moral values in everyday life.

This study demonstrates that integrating a scientific approach into Islamic Religious Education (PAI) has the potential to foster more active, reflective, and contextual learning, while simultaneously addressing a gap in prior literature, where PAI is still viewed as a normative subject that does not adequately accommodate students' scientific thinking skills. Therefore, this research offers a significant contribution to the development of more modern and effective PAI learning strategies.

Research Methods

The type of research used in this study is qualitative research. Qualitative research is research that intends to understand the phenomena of what is experienced by research subjects such as behavior, perception, motivation, actions, etc. holistically and by means of description in the form of words and language in a specific natural context and by utilizing various natural methods (Anggito & Setiawan, 2018). The subjects of this research are all parties who can provide information or data needed to obtain the desired results or *known in data collection can be done face-to-face or online*. In connection with the intended research, the subjects of the research are all Islamic religious education teachers and students of SMP N 23 Rejang Lebong.

There are three main stages in qualitative research: 1) the description or orientation stage. At this stage, the researcher describes what they see, hear, and feel. They then briefly record the information they have obtained. 2) the reduction stage. At this stage, the researcher summarizes all the information obtained in the first stage to focus on a specific problem. 3) the selection stage. At this stage, the researcher elaborates on the established focus in more detail and then conducts an in - depth analysis of the problem focus. The result is a theme constructed based on the data obtained, transforming it into knowledge, a hypothesis, or even a new theory (Sholikhah, 2016).

The data collection techniques used in this study were observation, interviews, and documentation. Observation is a data collection method in which the investigator directly observes (without tools) the phenomena being studied, whether the observation is carried out in an artificial situation that must be created. Observation is a data collection tool carried out by systematically observing and recording the phenomena being investigated. The observation used in this study was non-participant observation, in which the observer only plays the role of observer. The researcher's attention focused on how to observe, record, photograph, study, and record the behavior or phenomena being studied. Interviews included a number of questions that explored the causes/obstacles to implementing a scientific approach. Interviews were conducted with Islamic religious education teachers. Documentation includes documents used in evaluating Islamic religious learning with a scientific approach. In analyzing the data, the study used qualitative data analysis techniques by Miles & Huberman (1994), which include data *reduction,* data *display,* and *conclusion drawing/verification.*

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Results and Discussion

In this study, the researcher focused on teachers' understanding of the scientific approach, looking at teachers' abilities in applying the scientific approach, and how to evaluate the scientific approach in Islamic religious learning.

Teachers' Understanding of the Scientific Approach

Based on the results of interviews with teachers, it was stated that the scientific approach is to provide understanding to students so that they can know, understand and apply what they learn scientifically. In the learning process, students are taught to seek knowledge from various sources through observing, asking, trying, processing, presenting, concluding, for all subjects. The scientific approach provides experiences that are felt to be lacking in the learning process in the previous curriculum by providing wider space for students to be able to provide responses, ask questions, explore, make synthesize, draw conclusions to then be communicated with teachers or fellow students, meaning the scientific approach tries to stimulate and facilitate students. In addition, there are teachers who say that this scientific approach is primarily oriented towards the humanities education model, which provides space for students to develop according to their intellectual potential. Students become the center of the lesson, not objects, character, skills and knowledge of students can be developed positively.

In this way, the learning process conducted by the teacher is slightly closer to the students' learning comfort. This allows students to be more independent in their learning. However, these activities must be guided by the teacher to ensure that the direction of student learning activities does not deviate from the syllabus in the lesson plan and the curriculum that must be met. Therefore, it can be concluded that the scientific approach aims to provide students with understanding so they can know, understand, and apply what they learn scientifically. Therefore, in the learning process, students are taught to seek knowledge from various sources through observing, asking questions, experimenting, processing, presenting, and concluding, for all subjects. This scientific approach is primarily oriented towards the humanities education model, which provides space for students to develop according to their intellectual potential. Students become the center of the lesson, not objects; students' character, skills, and knowledge can be developed positively.

Regarding the principles of the scientific approach, which are contained in the National Education System, which has a scientific basis, is dynamic, and has undergone many developments to keep up with the developments and challenges of the times. In turn, the scientific approach must adopt principles so that practices are always based on principles as a basis, and put forward several principles of the scientific approach. Based on the results of interviews with teachers, it was explained that the principles of the scientific approach are student-centered learning, forming students' own ideas, avoiding rhetoric, giving students the opportunity to internalize and maintain ideas, rules and principles, encouraging more student thinking skills, and increasing the academic motivation of students and teachers. The principles of the scientific approach to student-centered learning are no longer teacher-centered and encourage students to form ideas, avoiding rhetoric makes students to express ideas and more thinking skills in order to increase the academic motivation of students and teachers. In addition, there are teachers who say that the principles of the scientific approach are divided into several points that serve as references in the learning process that uses the scientific approach. Student-centered learning, forms students' self-concept, avoids verbalism, provides opportunities for students to internalize and cultivate concepts, rules and principles, and

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encourages the expansion of students' thinking abilities in increasing students' learning motivation and teachers' learning motivation, by providing opportunities for students to practice communicative skills, a process of breaking down ideas, rules and principles that students construct in their knowledge structure occurs.

Teachers' Ability to Apply the Scientific Approach

Based on the results of observations of the learning process using a scientific approach carried out by teachers, it was found that teachers carried out learning in accordance with the steps of the scientific approach. Teachers observe students regarding what they will do, ask if there is a problem or there is material that is not clear when presented to students, then manage data, present data in the form of presentations, provide feedback, conclude and finally create and manage networks. Teachers' abilities are also seen from how teachers can adjust to the needs in the class, such as if there is material discussed that requires understanding, teachers simply explain or provide problems related to the material being taught, then monitor students' solutions to the problem, then ask students to explain what they understand.

In a scientific approach, the questioning process is the beginning of the formation of students' thinking in developing the knowledge and experience they receive. If possible, teachers should be able to highlight students' critical thinking in the subjects being taught, for example by providing factual explanations (embedded in everyday life) compared to conceptual explanations. Based on observations, teachers have the ability to manage the classroom well. This is evident in how teachers can create active learning through discussions and questions and answers among students or with the teacher. In this case, teachers invite students to ask questions by analogizing with problems that exist in everyday life. However, not all students must question the subject matter explicitly; students are given the opportunity to direct basic questions into everyday life. Based on the results of interviews with teachers, this analogy is conducted to assess the level of creativity and reasoning skills of students when they are able to relate it to the subject being studied. In addition, there is a process carried out in forming students' thinking frameworks through questions: the teacher asks questions and students formulate answers, then the teacher summarizes the answers and asks students to reformulate the questions and draw conclusions.

For authentic learning, students must try or experiment, especially with appropriate objects or things. Students must also acquire procedural skills to acquire knowledge about the natural environment, and the ability to use scientific and academic methods to solve problems they face daily. As with the comparative religion material, the teacher instructs students to find references to books on Islamic jurisprudence with strong foundations, such as Bulughul Maram. Then, they are asked to discuss them. To ensure that this activity is focused and does not deviate, the teacher must continuously monitor and guide students when something is wrong or needs correction. At the end of the lesson, the teacher asks students to apply the learning in their daily lives. In this case, the teacher states that such a learning process will be more ingrained in students and make the lesson easier to remember.

Implementation of Scientific Approach Learning Evaluation

The assessment process in this scientific approach uses authentic assessment, where teachers are required to make assessments on cognitive, affective, and psychomotor aspects. Cognitive assessment of subjects involves cognitive aspects divided into 6 phases starting from knowledge, understanding, application, analysis, linearization and evaluation. The cognitive domain refers to thinking skills, including the ability to remember, understand, apply, analyze, synthesize, and evaluate. At the level of

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awareness there are six aspects or stages of the thinking process, from the lowest level to the highest level. Based on the results of interviews and documentation of learning outcome evaluation activities in the cognitive domain conducted by teachers, it consists of tests used to demonstrate aspects of rational knowledge, input types, and true-false types. In objective tests, multiple-choice and true-false types can also reveal aspects of understanding. In addition, assessment is carried out from how students can define a new phenomenon based on certain and general principles, the most widely used system is having a cause-and-effect relationship, asking about mechanisms or conditions that may play a role in the occurrence of symptoms. By classifying words, phrases, or questions using analytical techniques, students can evaluate a work by comparing it with other related works.

The measurement of the affective domain carried out by teachers is measured based on various measures, namely the Likert scale, multiple choice scale, Thurstone scale, Guttman scale, differential scale, and interest measures. There are categories of affective domains carried out by teachers as learning outcomes, namely acceptance, namely a person's sensitivity in receiving external stimuli that come to him in the form of problems, situations, symptoms and so on. Answers, responses and reactions given by students to the stimulation given. Assessment or appreciation means giving value or giving appreciation to an activity or object, so that if the activity is not done, it is felt that it will bring loss or regret.

Psychomotor domain measurements carried out by teachers are measured based on reflex movements, basic basic movements, mental capacity, kinesthetic discrimination, visual discrimination, auditory discrimination, tactical discrimination, coordinated perception skills, physical skills, capable movements, non-conversational communication (except voice movements) including: expressive movements, perceptual movements.

Conclusion

Teachers' understanding, implementation, and evaluation of Islamic religious education learning using a scientific approach are good. Teachers ' understanding of the scientific approach is evident in their understanding of the steps and principles of the scientific approach. The implementation of learning using the scientific approach by teachers is also in accordance with the steps of the scientific approach. Teachers observe students regarding what they will do, ask if there is a problem or if there is unclear material, manage the class by raising problems, asking students to explain what they understand, providing feedback, concluding, and finally making connections to everyday life. The assessment or evaluation process in the scientific approach carried out by teachers has used authentic assessment, where teachers make assessments on cognitive, affective, and psychomotor aspects.

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