Enhancing Readiness of Islamic Education Teachers in Implementing Scientific Learning and Authentic Assessment

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Abstract

This study examines the acceptance and readiness of PAI (Islamic Education) teachers towards the implementation of Curriculum 2013. The objective is to assess their acceptance of the curriculum, readiness to implement the scientific approach and authentic assessment, and their paradigm shift in education. Surveys were conducted to collect data, which was analyzed using mean scores. The findings reveal that PAI teachers in primary schools and Islamic schools have a positive attitude towards Curriculum 2013 and are ready to implement it. They also demonstrate an understanding of the scientific approach and authentic assessment. The results indicate the dedication and adaptability of PAI teachers in meeting the changing demands of education. Their paradigm shift aligns with the goals of Curriculum 2013, highlighting their commitment to delivering high-quality Islamic education. These findings have important implications for educational stakeholders in supporting and empowering PAI teachers, emphasizing the need for continuous professional development. Overall, the study showcases the positive disposition and preparedness of PAI teachers in embracing the changes brought by Curriculum 2013, ensuring effective teaching and learning experiences for students.

Keywords: *Acceptance; Readiness; Curriculum 2013; PAI teachers; Paradigm shift.*

A. Introduction

The development and refinement of the curriculum are continuously carried out to ensure that the national education system remains relevant and competitive. The dynamics of curriculum orientation occur as a form of adjustment in the education sector, which is influenced by three major forces: civil society, the nation-state, and globalization, along with their various derivatives and configurations. These developments are supported by advancements in science and technology, giving rise to an industrial society that fosters global social modernization, particularly since the mid-20th century. These social transformations synergistically influence and are influenced by the development of educational models as a platform for the transfer and transformation of knowledge between generations of each nation (Rahmat, 2019; Tambak & Sukenti, 2020).

Since Indonesia gained independence, the national education system, as represented by its curriculum paradigm, has been built with a dynamic orientation. The Old Order Curriculum was designed to cultivate patriotic generations. The 1975 curriculum, known as the content-based curriculum, aimed to produce skilled individuals and development-oriented individuals. The 1984 curriculum developed a goal-oriented curriculum with an active learning approach known as CBSA (Active Student Learning Method) (Aziz, 2019). The 1994 curriculum, based on Link and Match (alignment between the world of education and the world of work), was developed as a response to the challenges of aligning education with the needs of the global workforce. The 2004 curriculum, known as the School-Based Curriculum (KBK), which was later refined as the School-Based Management Curriculum (KTSP) in 2007, aimed to clarify the authentic competencies of students, thus producing professional individuals in Indonesia. The 2013 curriculum, based on character development that sharpens the mind and refines emotions, intended to explicitly explore the essential competencies of students, aiming to produce high-quality and globally competitive individuals (Desmila & Yaswinda, 2022; Khalili et al., 2019; Saputri et al., 2019).

The development of the curriculum is also based on an analysis of the nation's potential and challenges. The fact that Indonesia possesses abundant natural resources yet lacks competitiveness has been a concern for education stakeholders, practitioners, intellectuals, and sociologists who are focused on education (Munardji et al., 2020). The government responded to this issue as the main educational authority by developing the 2013 Curriculum. In his speech, the Minister of Education and Culture, Muhammad Nuh, cited the quality of Indonesian education as lagging behind in the TIMSS (Trends in International Mathematics and Science Study) assessment. Indonesian students were found to have a very low level of cognitive ability in understanding complex information, theories, analysis and problem-solving, the use of tools, procedures, and problem-solving, as well as conducting investigations. Furthermore, the affective and psychomotor domains were relatively untouched. The results of the Program for International Student Assessment (PISA), which focuses on reading literacy, mathematics, and science, revealed that Indonesian students ranked 64th in mathematics literacy, 61st in reading literacy, and 64th in science literacy out of 65 countries. Therefore, the Minister offered a curriculum that aimed not to burden students with content but to cultivate essential abilities to build the Indonesian nation.

The curriculum changes actually involve fundamental shifts in educational paradigms as the curriculum serves as the orientation, goals, direction, and evaluation system of education. In the case of primary education, the mindset and teaching patterns based on subject-based or separated curriculum models have been transformed by the development of an integrated curriculum based on themes (Abdul Fattah Santoso et al., 2019). This process requires intensive education and training as it involves significant changes. The development of thematic learning implies a need for understanding, commitment, practical skills, and flexibility to overcome the differences in the learning characteristics of each subject, such as Science, Mathematics, and Indonesian Language, while integrating the other knowlegdes.

One of the key changes in the 2013 curriculum is the implementation of the scientific approach and authentic assessment. The scientific approach emphasizes inquiry-based learning, critical thinking, and problem-solving skills. It encourages students to actively explore and discover knowledge through observation, experimentation, and analysis. Authentic assessment focuses on assessing students' ability to apply their knowledge and skills in real-life situations, rather than relying solely on traditional tests and examinations.

In the context of Islamic Religious Education (IRE) in primary schools in Banyumas Regency, the readiness of teachers to implement the scientific approach and authentic assessment is crucial. This study aims to assess the readiness of IRE teachers in implementing these changes and examine the factors that may influence their readiness. By understanding the readiness of teachers, appropriate interventions and support can be provided to enhance their capacity to effectively implement the new curriculum (Sahu et al., 2018).

The study will utilize a mixed-methods approach, combining qualitative and quantitative research methods. Qualitative data will be collected through interviews and focus group discussions with IRE teachers, school administrators, and education experts. These interviews will explore teachers' perceptions, attitudes, and beliefs towards the scientific approach and authentic assessment, as well as their preparedness and challenges in implementing them. Focus group discussions will provide a platform for teachers to share their experiences, exchange ideas, and discuss strategies for successful implementation.

Quantitative data will be collected through surveys distributed to a sample of IRE teachers in primary schools in Banyumas Regency. The survey will assess teachers' knowledge and understanding of the scientific approach and authentic assessment, their self-efficacy in implementing these methods, and their perceived support and resources available to them. The data collected will be analyzed using statistical methods to identify patterns, correlations, and trends.

The findings of this study will provide insights into the readiness of IRE teachers in Banyumas Regency to implement the scientific approach and authentic assessment. It will identify the factors that hinder or facilitate their readiness and suggest recommendations for improving teacher preparation and support. The results can be used by education policymakers, school administrators, and teacher training institutions to design targeted interventions and professional development programs that enhance teachers' capacity to implement the new curriculum effectively.

In conclusion, the implementation of the scientific approach and authentic assessment in the 2013 curriculum represents a paradigm shift in educational practices. Understanding the readiness of IRE teachers in primary schools in Banyumas Regency to implement these changes is crucial for successful curriculum implementation. This study aims to assess teachers' readiness, identify influencing factors, and provide recommendations for supporting teachers in their implementation efforts. By doing so, it contributes to the ongoing development and improvement of the education system in Banyumas Regency.

B. Method

The research methodology used in this study is a mixed-method approach, which is a combination of quantitative and qualitative approaches. The research begins with a quantitative study to measure the readiness of Islamic Education (PAI) teachers in implementing a scientific approach and authentic assessment. Subsequently, the research continues with a qualitative study to understand the reasons, processes, and meanings behind the phenomena and the results of the quantitative research (Fauth & González-Martínez, 2021).

The main object of the research is the dynamics of paradigm shift in education that occurs among PAI teachers in primary schools (SD) and Islamic elementary schools (MI). The focus of this research is on the mindset and behavioral patterns of teachers in implementing the scientific approach and authentic assessment in PAI learning. Some variables

observed in the dynamics of this educational paradigm shift include teachers' acceptance attitudes toward the 2013 Curriculum, teachers' understanding of the 2013 Curriculum paradigm, teachers' understanding of the scientific approach and authentic assessment, teachers' self-perception of their ability to implement the scientific approach and authentic assessment, teachers' ability to implement the scientific approach and authentic assessment, and teachers' commitment to implementing the scientific approach and authentic assessment.

The research population consists of all PAI teachers in the Banyumas Regency, with a total of 982 individuals. The research sample consists of 60 SD teachers and 70 MI teachers selected through purposive sampling from five districts in the Banyumas Regency. In addition, in-depth interviews were conducted with a number of PAI teachers using snowball-purposive sampling.

The data collection methods used in this research include: (1) Questionnaire: The questionnaire is the primary method used to collect data. The questionnaire consists of 35 questions divided into four sections. The questionnaire instrument was pilot-tested to ensure its validity and reliability before being distributed to the respondents.

In-depth interviews: In-depth interviews were conducted with PAI teachers to obtain more detailed information about their knowledge, experiences, meanings, and commitments in implementing the 2013 Curriculum. In addition, the researcher also conducted preliminary observations to determine the schools that would be the research setting. The researcher sought permission from relevant institutions such as STAIN Purwokerto and Bakesbanglinmas of Banyumas Regency, as well as obtaining permission from each school and PAI teachers as research respondents.

The research process begins with a general interview about the readiness of PAI teachers in implementing the 2013 Curriculum, followed by distributing the questionnaire to the respondents. After obtaining the questionnaire data, the researcher clarifies certain aspects by interviewing teachers and conducting further observations.

C. Finding and Discussion

1. Acceptance of Teachers of Islamic Religious Education (PAI) towards Curriculum 2013

The mean value of teachers' acceptance of the new curriculum (Curriculum 2013) in Islamic Religious Education is as follows. The mean value for PAI teachers in primary schools is 2.8 (on a scale of 0-4) or 69.9 (on a scale of 0-100), while the mean value for PAI teachers in Islamic schools (MI) is 2.72 (on a scale of 0-4) or 67.9 (on a scale of 0-100). The overall mean value for the acceptance of PAI teachers in both primary schools and Islamic schools is 2.75 (on a scale of 0-4) or 68.8 (on a scale of 0-100).

The data shows that overall, the acceptance of PAI teachers towards the new curriculum (Curriculum 2013) falls under the second category or the normal category, which is "Accepting Curriculum 2013: Understands and is ready to implement it." The mean values for both PAI teachers in primary schools and Islamic schools are within the same category, both in the 0-4 and 0-100 rating scales.

2. Readiness of PAI Teachers in Implementing the Scientific Approach

The mean value of teachers' readiness to implement the scientific approach in teaching obtained the following data. The mean value for PAI teachers in primary schools is 2.88 (on a scale of 0-4) or 71.9 (on a scale of 0-100), while the mean value for PAI teachers in Islamic schools is 2.84 (on a scale of 0-4) or 71 (on a scale of 0-100). The overall mean value for the readiness of PAI teachers in implementing the scientific approach in both primary schools and Islamic schools is 2.86 (on a scale of 0-4) or 71.4 (on a scale of 0-100).

The data shows that overall, the understanding of teachers regarding the scientific approach to teaching and its implementation can be categorized as level 2 or the normal category, which is "Accepting Scientific Learning: Understanding the principles and characteristics of the scientific approach and able to implement it." This category applies to both PAI teachers in primary schools and Islamic schools.

3. Readiness of PAI Teachers in Implementing Authentic Assessment

The mean value of the readiness of PAI teachers in primary schools and Islamic schools to implement authentic assessment in teaching obtained the following data. The mean value for PAI teachers in primary

schools is 3.41 (on a scale of 0-4) or 85.3 (on a scale of 0-100), while the mean value for PAI teachers in Islamic schools is 3.37 (on a scale of 0-4) or 84.3 (on a scale of 0-100). The overall mean value for the readiness of PAI teachers to implement authentic assessment in both primary schools and Islamic schools is 3.39 (on a scale of 0-4) or 84.8 (on a scale of 0-100).

The data shows that overall, the understanding of teachers regarding authentic assessment and its implementation can be categorized as level 1 or the exceptional category, which is "Highly Accepting Authentic Assessment: Understands the principles and characteristics of authentic assessment and able to implement it." This category applies to both PAI teachers in primary schools and Islamic schools.

4. Paradigm Shift in Teacher Education

The mean value of the paradigm shift in education that occurred in PAI teachers in both primary schools and Islamic schools through the emergence and implementation of Curriculum 2013 is as follows. The mean value for PAI teachers in primary schools is 3.85 (on a scale of 0-4) or 96.3 (on a scale of 0-100), while the mean value for PAI teachers in Islamic schools is 3.91 (on a scale of 0-4) or 97.9 (on a scale of 0-100). The overall mean value for the paradigm shift in PAI teachers in both primary schools and Islamic schools is 3.88 (on a scale of 0-4) or 97.1 (on a scale of 0-100).

The data shows that the paradigm shift in education that occurred in PAI teachers in both primary schools and Islamic schools through the emergence and implementation of Curriculum 2013 can be categorized as level 1 or the exceptional category, which is "Highly Understands and Implements the New Paradigm of Curriculum: Understands and highly capable of implementing educational practices based on the new curriculum paradigm." This category applies to both PAI teachers in primary schools and Islamic schools.

5. The Scientific Approach in Islamic Religious Education

Scientific learning is an approach that adopts scientific steps in building knowledge through the scientific method. The required learning model is one that allows the development of scientific thinking skills, such as the development of a "sense of inquiry" and students' creative thinking abilities (Berry, 2019; Mufatakhah et al., 2019). The needed learning model should focus on the development of learning abilities, not just the

acquisition of knowledge, skills, and attitudes. It is important to consider how knowledge, skills, and attitudes are acquired by students.

Scientific learning not only focuses on the end result of learning but also emphasizes the learning process. Therefore, scientific learning emphasizes process skills. The learning model based on the improvement of scientific process skills is a model that integrates scientific process skills into an integrated material presentation system (Auliya, 2022).

The scientific approach model emphasizes the process of seeking knowledge rather than the transfer of knowledge. Students are seen as active learners who need to be actively involved in the learning process, while the teacher acts as a facilitator who guides and coordinates learning activities. In this model, students are encouraged to engage in the process of seeking knowledge related to the subject matter through various scientific process activities, similar to what scientists do in scientific research. As a result, students are directed to discover various facts, build concepts, and develop new values necessary for their lives. The focus of the learning process is directed towards developing students' skills in processing knowledge, discovering and developing facts, concepts, and values needed.

This model also includes the discovery of meaning, organization, and structure of ideas or concepts, gradually teaching students how to organize and conduct research (Decapua, 2008). Skills-based science process learning emphasizes students' ability to discover knowledge based on learning experiences, laws, principles, and generalizations, thus providing more opportunities for the development of higher-order thinking skills. As a result, students are empowered as active learners who play an active role in searching for information from various learning sources, while the teacher acts as an organizer and facilitator of learning.

The skills-based science process learning model has the potential to develop students' basic life competencies through the development of scientific process skills, scientific attitudes, and gradual knowledge construction processes. Scientific process skills are essentially basic

learning tools that function as a foundation for individuals to develop themselves.

The learning paradigm developed in the 2013 Curriculum includes four characteristics: (1) using a scientific approach, (2) using science as the driving force for learning in all subjects, (3) guiding students to seek knowledge through discovery learning, and (4) emphasizing language skills as a means of communication, knowledge conveyance, and logical, systematic, and creative thinking.

Among these four characteristics, the scientific approach is the main one as it encompasses the others. The scientific approach is developed through activities such as observing, questioning, gathering information and experimenting, processing and associating information, and communicating or building social networks. In this learning process, it is the students who should actively engage in scientific skills, not the teacher. Scientific learning has seven criteria:

1. Learning materials are based on facts or phenomena that can be explained through logic or specific reasoning, not mere approximations, imagination, legends, or fairy tales.
2. Teacher explanations, student responses, and educational interactions are free from bias, subjective thinking, or reasoning that deviates from logical thinking.
3. Encourages and inspires students to think critically, analytically, and accurately in identifying, understanding, solving problems, and applying learning materials.
4. Encourages and inspires students to think hypothetically in identifying differences, similarities, and connections between one learning material and another.
5. Encourages and inspires students to understand, apply, and develop rational and objective thinking patterns in responding to learning materials.
6. Based on concepts, theories, and empirical facts that can be accounted for.

7. Learning objectives are focused on the development of scientific thinking skills, such as critical thinking, analytical thinking, problem-solving, and hypothesis testing.

To implement the scientific approach in Islamic Religious Education, educators can incorporate the following strategies:

1. Problem-Based Learning: Present real-life or hypothetical problems related to Islamic teachings and encourage students to explore and analyze them using a scientific approach. This approach promotes critical thinking and problem-solving skills while deepening students' understanding of Islamic concepts.

2. Inquiry-Based Learning: Encourage students to ask questions, conduct research, and explore various sources to find answers. This approach fosters curiosity, independent thinking, and information literacy skills. Students can investigate topics related to Islamic history, ethics, or the interpretation of religious texts.

3. Experimentation and Observation: Provide opportunities for students to engage in hands-on activities, experiments, and observations related to Islamic concepts. For example, students can explore the effects of prayer on mental well-being or conduct ethical experiments to understand the principles of Islamic ethics.

4. Collaborative Learning: Encourage students to work together in groups or pairs to discuss and analyze Islamic teachings. This approach promotes communication skills, teamwork, and the ability to consider multiple perspectives.

5. Integration of Technology: Utilize educational technology tools and resources to enhance the learning experience. Students can use online databases, digital libraries, and multimedia presentations to access authentic Islamic sources, explore different interpretations, and engage with interactive learning materials.

6. Critical Analysis of Islamic Texts: Teach students how to critically analyze Islamic texts, including the Quran and Hadith, by examining the historical context, linguistic aspects, and scholarly interpretations.

This approach promotes intellectual rigor, research skills, and a deeper understanding of the Islamic tradition.

7. Ethical Discussions and Debates: Engage students in ethical discussions and debates on contemporary issues relevant to Islamic ethics and morality. This approach encourages students to think critically, articulate their viewpoints, and understand the complexities of applying Islamic principles in a diverse society.

It is important to note that incorporating the scientific approach in Islamic Religious Education does not diminish the importance of faith and spiritual aspects. Rather, it enhances students' understanding and engagement with Islamic teachings by encouraging critical thinking, research skills, and a deeper appreciation for the intellectual dimensions of the faith.

By adopting the scientific approach in Islamic Religious Education, students can develop a well-rounded understanding of their faith, grounded in critical thinking, evidence-based reasoning, and a deeper exploration of Islamic concepts. This approach empowers students to become active learners, independent thinkers, and informed contributors to their communities while fostering a harmonious integration of religious and scientific knowledge.

E. Conclusion

In conclusion, the findings from the discussion above provide insights into the acceptance and readiness of PAI (Islamic Education) teachers towards the changes in the education system, specifically the implementation of Curriculum 2013. Overall, the PAI teachers' acceptance of the new curriculum is categorized as "Accepting Curriculum 2013: Understanding and ready to implement it." This applies to both primary school and Islamic school teachers, as indicated by their mean scores falling within the same category. Furthermore, the teachers' understanding and readiness to implement the scientific approach and authentic assessment in their teaching practices are also categorized as "Accepting Scientific Learning" and "Accepting Authentic Assessment" respectively. These results highlight that PAI teachers have embraced the

changes and are equipped with the necessary knowledge and skills to integrate these approaches into their classrooms.

Moreover, the findings indicate a significant paradigm shift in teacher education. PAI teachers in both primary schools and Islamic schools have exhibited a high level of understanding and implementation of the new educational paradigm introduced by Curriculum 2013. Their mean scores fall within the category of "Highly Understands and Implements the New Paradigm of Curriculum." This suggests that PAI teachers have successfully embraced the changes in educational practices and are capable of applying the principles and characteristics of the new curriculum. These results are promising as they reflect the dedication and adaptability of PAI teachers in meeting the evolving demands of the education system and ensuring effective teaching and learning experiences for their students.

Overall, the findings demonstrate that PAI teachers have shown positive attitudes and readiness towards the changes in the education system, particularly in the implementation of Curriculum 2013. Their acceptance of the new curriculum, understanding and application of the scientific approach, utilization of authentic assessment methods, and paradigm shift in education all signify their commitment to enhancing the quality of Islamic education. These findings provide valuable insights for educational stakeholders in further supporting and empowering PAI teachers to continue their professional growth and deliver impactful education to their students.

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