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Inventory of Science Verses in Islamic Religious Education Learning

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Abstract

Integrating Islamic religious teachings and modern science in the Islamic Religious Education (PAI) curriculum is an important challenge in holistic basic education. This study examines the process of inventorying Qur'anic verses integrated with scientific concepts in Islamic Education learning books at Manaaratul Iman Elementary School. Using a qualitative approach through document analysis and Seyyed Hossein Nasr's hermeneutic framework, this study found that identifying, selecting, and interpreting verses was not fully systematic and still lacked the application of thematic (*maudhu'i*) methods. The lack of teacher involvement and contextual information, such as asbabun nuzul, also weakens the integration between science and religion. The findings fill the void of practical studies integrating science and religion at the basic education level. This research analyzes the curriculum process by concretely integrating the Qur'an and science. Through periodic evaluations, the involvement of tafsir experts and scientists to apply the *maudhu'i* method systematically, and teacher training in thematic methods are also important recommendations so that the integration of religion and science does not stop at the concept level, but becomes a transformative Islamic curriculum model that is relevant to the times.

Keywords Al-Qur'an; Islamic Education; Religion and Science Integration

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1. INTRODUCTION

Integrating religious teachings with modern scientific knowledge represents a crucial yet complex endeavor (Naik, 2007), particularly within Islamic education. As the central text of Islam, the Qur'an is revered as a spiritual guide and regarded as a source of wisdom that encompasses all aspects of life, including knowledge of the natural world. Therefore, the process of inventorying Qur'anic verses for the development of Islamic Religious Education (IRE) textbooks that incorporate scientific content plays a pivotal role (Nurainiah, 2020). This is because the Qur'anic verses contain spiritual values and rich references to natural phenomena that align with scientific principles. Such inventorying is a fundamental basis for curriculum development to provide students with a holistic understanding that harmoniously unites religious knowledge with modern science.

Accurate inventorying enables teachers and curriculum developers to select Qur'anic verses that are not only thematically relevant but also capable of explaining or enriching scientific concepts taught at the elementary school level. Through this approach, students are encouraged to see that Islamic teachings and scientific knowledge are not opposing forces, but rather two complementary sources of

truth (Solichin, 2017). Many scholars argue that the Qur'an contains numerous references to natural phenomena that align with scientific principles, demonstrating its enduring compatibility with science (Siti Lailiyah, 2020).

However, challenges arise in interpreting these verses in a manner that remains faithful to religious doctrine and relevant to contemporary scientific understanding. Traditional approaches in Islamic education (Julianto, 2020) Often emphasize memorization and recitation of Qur'anic verses (Nur & Aryani, 2022). Sometimes at the expense of deeper comprehension and their application in modern contexts. There is an urgent need for research to address the gap in the practical implementation of religion-science integration at the elementary education level, which has thus far tended to be normative or symbolic. This has contributed to the perception that religion and science are two separate and potentially conflicting domains (Crawford, 2005).

In response to these challenges, several educational institutions have begun to explore ways to integrate religious teachings with scientific knowledge within their curricula (Mansir et al., 2024). SD Manaaratul Iman, an Islamic elementary school, has undertaken such an initiative by developing a curriculum incorporating Quranic verses alongside modern scientific concepts. The school's curriculum team has selected Qur'anic verses related to scientific themes, such as the universe, human body organs, biodiversity, the water cycle, and gravity, and integrated them into the Islamic Religious Education program.

In the landscape of contemporary education, the integration of science and religion, particularly within Islamic education, remains a significant yet underexplored area (Arifudin, 2016). Although the Qur'an is widely recognized as a text containing wisdom relevant to both spiritual and worldly aspects, there is still a limited understanding of how this wisdom can be effectively translated into educational curricula that meet modern standards (Sahil et al., 2024).

Although scholarly discourse on the integration of religion and science, particularly in the context of Islamic education (Suwendi et al., 2024a), has expanded considerably, and a noticeable gap persists in practical application. The majority of existing studies remain centered on philosophical discussions or abstract theoretical constructs, with insufficient focus on the implementation of these concepts within actual educational environments (Budiyono et al., 2024).

The curriculum developed by SD Manaaratul Iman presents a practical example of how religious teachings and scientific knowledge can be integrated within Islamic education, particularly by creating educational textbooks for children. However, there is a lack of scholarly studies that examine the processes, challenges, and outcomes associated with such integration. This gap is significant, as it limits the capacity of other educational institutions to adopt or adapt similar approaches (Sarwadi, 2023). Moreover, without a clear understanding of the methodologies employed, evaluating the effectiveness of such integration or formulate appropriate recommendations for improvement (Moslimany, Otaibi, & Shaikh, 2024). This study seeks to address that gap by providing a comprehensive analysis of the processes and methodologies employed by the curriculum team at SD Manaaratul Iman in inventorying Qur'anic verses integrated with scientific content, to offer practical insights for educators and researchers interested in integrating religion and science.

The integration of religion and science in education has emerged as a significant and frequently debated topic over the past few decades. A substantial body of literature underscores the importance of harmonizing these two domains, particularly within Islamic education. Seyyed Hossein Nasr, a prominent scholar in the study of religion and science, asserts that this integration is not merely an attempt to combine two distinct disciplines but a profound process involving a holistic understanding of reality. Nasr emphasizes that both science and religion stem from the same source of truth, divine revelation, and should be studied in parallel to provide a comprehensive understanding of the universe (Nasr et al., 2022).

Barbour (2000), in his influential work "*When Science Meets Religion: Enemies, Strangers, or Partners?"* (Zulfis, 2019), classifies the relationship between science and religion into four models: conflict, independence, dialogue, and integration. He argues that the integration model is the most constructive, enabling religion and science to complement and enrich human understanding of reality. This approach is also highly relevant in educational contexts, where the teaching of religion and science can be designed to support rather than contradict each other.

The hermeneutical approach developed by Seyyed Hossein Nasr plays a significant role in understanding the relationship between religion and science within the context of Islamic education. Nasr emphasizes that interpreting Qur'anic verses related to natural phenomena must consider a broader cosmological and metaphysical context. This approach highlights the importance of viewing Qur'anic verses as sources of scientific knowledge and as profound spiritual guidance. Nasr also critiques reductionist perspectives that separate religion and science, and he underscores the necessity of achieving harmony between these two domains (Rivki et al., 2023).

Nasr's hermeneutical theory offers a systematic framework for analyzing and understanding Qur'anic verses associated with scientific concepts (U. Inayati, 2019). Nasr's hermeneutical theory offers a systematic framework for analyzing and understanding Qur'anic verses associated with scientific concepts. In an educational context, this approach can be employed to develop curricula that enrich students' scientific knowledge and guide them toward a deeper spiritual awareness (Mahmudinata, 2024). Therefore, this hermeneutical approach is highly relevant to the present study, particularly in analyzing how the curriculum team at SD Manaaratul Iman integrates Qur'anic teachings with modern science.

Several previous studies have examined how integrating religion and science can be implemented within educational curricula, emphasizing its potential to foster intellectual and spiritual development in students. For example, Zakir Naik's book *"The Quran and Modern Science: Compatible or Incompatible?"* (Naik, 2007) Presents an objective analysis of how the Qur'an aligns with modern scientific discoveries. He argues that the Qur'an, which contains more than a thousand verses related to science, explicitly supports scientific advancement and offers a rich perspective to be studied and explored within educational contexts.

In addition, the book *"Teaching Religion and Science: Effective Pedagogy and Practical Approaches for RE Teachers" by Tonie Stolberg dan Geoff Teece* (Stolberg & Teece, 2011) Discusses how religion and science education can be effectively taught in the classroom. The book provides a comprehensive pedagogical framework for teaching religious and scientific themes together, emphasizing the importance of an integrative approach focusing on scientific knowledge and spiritual values. Another study, such as the article *"Keilmiahan Sains Adalah Bukti Kebenaran Al-Qur'an dan Sains"* (Siti Lailiyah, 2020), The study emphasizes that the natural phenomena described in the Qur'an are signs of Allah's power, which can be interpreted scientifically. Lailiyah argues that understanding nature through science enriches scientific knowledge and deepens spiritual insight, aligning with the Qur'anic vision of the relationship between humans and the universe.

Previous research on the integration of religion and science reveals a significant gap in the literature: without a clear understanding of how such integration is achieved, other educational institutions may struggle to replicate or further develop similar approaches (Taqiyuddin, 2021). The specific processes and methodologies that curriculum teams employ to analyze and integrate Qur'anic verses with scientific concepts have not been thoroughly documented or critically examined. A major issue addressed in previous studies is the lack of in-depth analysis regarding the processes involved in integrating Qur'anic teachings with modern science within Islamic religious education. Furthermore, a critical assessment is needed to evaluate the effectiveness of this integration in enhancing students' understanding of both religious and scientific concepts (Harahap, 2023). Therefore, the Islamic religious education curriculum at SD Manaaratul Iman is examined in this study as an effort to bridge the gap

between religious teachings and scientific knowledge.

In the context of Islamic primary education, the integration of religious teachings and science carries significant implications (Ardi, 2024). An education system that focuses solely on technical aspects, such as memorization and recitation of Qur'anic verses, may lead students to miss the opportunity to grasp the deeper meanings of their religious teachings (Mansir et al., 2024). Therefore, integrating religion and science within the curriculum, such as that implemented by SD Manaaratul Iman, is essential for fostering a holistic and comprehensive understanding among students.

These theoretical studies indicate that the integration of religion and science in education is not only possible but also necessary for creating a more balanced and holistic educational experience (Heri & Ruswandi, 2022; Nasution et al., 2023; Wahib, 2022). In this regard, Nasr's hermeneutic approach offers a robust framework for understanding how Qur'anic verses can be integrated with scientific knowledge and how this integration can be applied in educational curricula to cultivate intellectually capable and spiritually enriched students.

This study adopts Seyyed Hossein Nasr's hermeneutic approach to evaluate how the integrated teachings align with religious and scientific perspectives. Nasr's approach (Abduh & Kerwanto, 2023), which emphasizes the harmony between religious knowledge and scientific understanding, provides a valuable framework for analyzing the effectiveness of this integration (Nasr, 2001). By applying this approach, the study seeks to assess whether the curriculum team at SD Manaaratul Iman has successfully utilized Qur'anic verses to balance religious and scientific education in the learning materials they developed, and how this balance contributes to a more holistic worldview among students. Through the application of Seyyed Hossein Nasr's hermeneutic approach (Nasr, 2001), This research also aims to contribute to a deeper understanding of how religious teachings and scientific knowledge can be harmonized within the educational context.

In the effort to develop an Islamic Religious Education (PAI) curriculum that is relevant to contemporary challenges, the integration of religious teachings and science has become an urgent necessity (Azka et al., 2024; Fauzan et al., 2024; Muntoha, 2024). The main issue addressed in this study is the lack of a systematic process for the inventory and interpretation of Qur'anic verses in the Islamic Religious Education (PAI) textbook at SD Manaaratul Iman. Although there have been efforts to integrate religious texts with modern scientific concepts, this process has not consistently applied the thematic (*maudhu'i*) method, and the involvement of teachers and experts in the critical stages of material development remains limited. Based on this background, the research problem is focused on how inventorying, compiling, and interpreting Qur'anic verses is conducted in the PAI textbook that integrates religious teachings with science, and to what extent this method supports holistic learning objectives. The main objective of this study is to thoroughly explore the methods and stages of Qur'anic verse inventory applied in the PAI textbook at SD Manaaratul Iman, while also evaluating the relevance and effectiveness of this integrative approach to contribute meaningfully to the development of Islamic education that harmonizes faith and reason.

Practically, the findings of this study will provide valuable insights for education and curriculum development initiatives that aim to integrate religious and scientific knowledge. An in-depth analysis of the processes and methodologies employed by the curriculum team at SD Manaaratul Iman in integrating Qur'anic verses with science will offer practical guidance for other educational institutions seeking to adopt a similar approach. Furthermore, the findings of this study may have broader implications for curriculum design that aspires to equip students with a holistic understanding of the world, grounded in faith and reason.

2. METHODS

This study employs a descriptive qualitative approach, primarily exploring the integration process of Qur'anic verses and scientific concepts within the Islamic Religious Education (PAI) textbook used at SD Manaaratul Iman. This approach was chosen as it enables the researcher to understand the meaning, structure, and dynamics of integrating religion and science as reflected in curriculum documents and teaching materials. Reality in this study is viewed as complex, contextual, and shaped by the social constructions of the curriculum team responsible for developing the learning materials. The study does not aim for generalization but rather seeks to deeply understand the processes occurring within the context of Islamic primary education. This approach allows the researcher to thoroughly examine the dynamics behind the integration of religious teachings and scientific concepts as conveyed in the curriculum (Kılıçoglu, 2018).

The primary data sources in this study are the integrative Islamic Religious Education (PAI) textbooks developed by the curriculum team at SD Manaaratul Iman. These books are used in teaching and learning activities across various grade levels, from lower to upper classes, and contain the integration of Qur'anic verses with scientific themes such as the water cycle, the creation of living beings, biodiversity, and energy. The analysis focuses on Qur'anic verses presented in the Islamic science textbooks used at SD Manaaratul Iman, with particular attention to those integrated with modern scientific concepts. The document analysis process begins by identifying the relevant textbooks. These books, compiled by the school's curriculum team, serve as the main data source for this study. Once the textbooks are identified, the researcher collects various supporting documents, such as copies of the books, scientific articles, and additional literature relevant to the research focus. (Sugiyono, 2013).

The data collection technique was carried out through document study. The researcher directly examined the main documents, namely the Islamic Religious Education (PAI) textbooks used at SD Manaaratul Iman, and identified sections containing Qur'anic verses linked to scientific concepts. To strengthen the study, the researcher also gathered additional literature such as journals on Islamic and science education, books on tafsir methodology, and scholarly works discussing the integration of religion and science within curricula. This process facilitated further analysis, enabling each verse related to science to be organized according to the scientific topics discussed in the textbooks. Once the data were organized, content analysis was conducted on the categorized verses. In this analysis, the researcher employed Seyyed Hossein Nasr's hermeneutical approach as the primary analytical framework (Shamshiri, 2018).

Data analysis was conducted using content analysis techniques, combined with Seyyed Hossein Nasr's hermeneutical approach to understand the deeper meaning of the studied verses. The analysis was conducted interactively, as developed by Miles and Huberman, involving the processes of data reduction, data display, and conclusion drawing or verification (Sugiyono, 2013): (1) data reduction, by thematically sorting the verses and scientific themes; (2) data display, in the form of categorization and mapping of the integration between the verses and scientific concepts; and (3) conclusion drawing, by evaluating the relevance, accuracy, and consistency of the integration within the context of Islamic Religious Education (PAI). Through this method, the research seeks to reveal how the integration process is structured, implemented, and can be improved within the framework of a holistic and scientific Islamic education. This provides a deeper understanding of how the integration between Qur'anic verses and science can be implemented in Islamic Religious Education at SD Manaaratul Iman, serving as a significant contribution to the literature on the integration of religion and science in education.

3. FINDINGS AND DISCUSSIONS

Integrating religion and science in education presents a complex yet crucial challenge, particularly in educational institutions such as SD Manaaratul Iman, which is committed to providing holistic education. This process aims not only to enrich students' knowledge but also to strengthen their understanding of how modern scientific knowledge and Islamic teachings can coexist, support one another, and complement each other harmoniously (Fikri, 2024; N. Inayati et al., 2024). The Islamic Religious Education (PAI) curriculum team at SD Manaaratul Iman has developed a unique method for inventorying Qur'anic verses that can be integrated with modern scientific concepts taught within the curriculum.

Inventory, Selection, and Integration of Science Verses in Islamic Religious Education Learning

The inventory process begins with the initial identification of Qur'anic verses relevant to the scientific topics taught in the curriculum. This stage is the foundation of the entire process, as selecting the appropriate verses is crucial to ensuring that the integration between religion and science is implemented effectively (Mutholingah, 2024; Ratodi, 2015). This identification is carried out by the Islamic Education curriculum team, which consists of teachers who possess a solid understanding of the Qur'an and a basic knowledge of the scientific concepts taught in the curriculum.

In conducting the identification, the curriculum team begins by reviewing all Qur'anic verses they consider relevant to natural phenomena, science, and technology. These verses are then linked to well-established scientific concepts (Sudarmanto et al., 2023). For example, verses that speak about the creation of the heavens and the earth are identified as relevant for teaching scientific theories about the origin of the universe, such as the Big Bang theory.

The curriculum team carried out this identification process independently without involving external tafsir experts. This approach was taken to ensure that the selected verses align with the intended learning context and can be effectively integrated with the scientific material being taught (Hidayah, 2015). However, throughout this process, the team continued to refer to widely recognized translations and standard tafsir works in Islamic educational literature to ensure the accuracy and relevance of the selected verses.

For instance, in identifying verses relevant to the concept of the water cycle, the curriculum team found Qur'anic verses that speak about rain, evaporation, and how water serves as a source of life (Arief, 2023). A verse such as Surah Al-Mu'minun [23]:18, *"And We sent down water from the sky in a measured amount, then We caused it to settle in the earth, and indeed, We can take it away,"* was selected because it has strong relevance to the scientific concept of the water cycle taught in class.

After the initial identification, the next step is the selection and screening of the verses that have been found. This stage is crucial to ensure that only the most relevant and easily understood verses are used in teaching. The selection process is carried out by considering several key criteria: Relevance to Scientific Topics, the selected verses must directly relate to the scientific concepts taught in the curriculum. For example, verses that discuss the creation of humans from clay are chosen to support the teaching of biological concepts related to the origin of human life; Suitability for Students' Level of Understanding, the selected verses must be easily comprehensible for students across various grade levels. Verses that are too complex or contain difficult contexts for students to grasp may be excluded, as they could lead to confusion. Potential for Integration with Teaching: The selected verses must be effectively integrable into science instruction. These verses should support the concepts taught and must not contradict well-established scientific knowledge.

During the selection process, the curriculum team also considered how the selected verses would be utilized in the teaching materials. They evaluated whether the verses could be explained within a scientific context that is easy to understand, and whether they could be used to illustrate complex scientific concepts in an engaging and meaningful way for students.

For example, in topics related to evolution, the curriculum team might select verses that speak about the creation and development of living beings. A verse from Surah An-Nur, verse 45, states: *"And Allah has created every [living] creature from water. Among them are those that crawl on their bellies, walk on two legs, and walk on four legs. Allah creates what He wills. Indeed, Allah is Most Capable of everything."* This verse was chosen because it can be linked to scientific concepts of evolution and the adaptation of living organisms.

After the verses have been selected, the next stage is contextual analysis and adaptation. At this stage, the curriculum team analyzes the chosen verses in-depth to ensure they can effectively integrate with the scientific concepts. This analysis involves a deep understanding of the religious meaning of the verses and how these can be connected with existing scientific knowledge.

In this process, the team applies a thematic (*maudhu'i*) tafsir approach, in which each verse is analyzed according to a relevant scientific theme. For instance, verses discussing the creation of humans are analyzed in the context of biology, focusing on how these verses can support scientific concepts about human origins and biological development.

Contextual adaptation is also carried out to ensure that the selected verses can be explained to students in language that is easy to understand (Onilivia et al., 2024; Tsaniyah & Manshuruddin, 2024). For example, in the water cycle topic, verses that discuss rain and evaporation are connected with scientific explanations of hydrology. The curriculum team develops explanations that link scientific descriptions of how water evaporates, forms clouds, and eventually falls as rain, with Qur'anic verses that describe this process from a religious perspective.

In addition, the curriculum team also considers how these verses can be applied in practical teaching contexts. For instance, they might design simple experiments that allow students to observe how water evaporates and forms clouds, while relating this process to the selected Qur'anic verses. This approach ensures that students not only grasp the scientific concepts but also understand how these concepts are described in the Qur'an.

The Development and Implementation of Integrative Teaching Materials Based on Scientific Verses in Islamic Religious Education

After the relevant Qur'anic verses have been identified, selected, and analyzed, the next step is to develop integrative teaching materials. These materials are designed to combine religious explanations with scientific knowledge, enabling students to see how these two aspects support and complement each other (Harahap, 2023).

The teaching materials developed by the curriculum team encompass various formats, including texts, images, diagrams, and practical activities. For instance, in the lesson on the water cycle, students are introduced to a diagram illustrating how water evaporates, forms clouds, and falls as rain. This diagram is then connected to relevant Qur'anic verses, allowing students to understand that this scientific concept is already present within their religious teachings.

The implementation of these materials takes place during classroom learning activities. Teachers utilize the prepared materials to help students grasp scientific concepts through a religious perspective (Junaid & Baharuddin, 2020). The curriculum team closely supervises this process to ensure that science and religion are integrated effectively and appropriately.

For example, during a lesson on the water cycle, the teacher might begin by explaining the scientific concept of how water evaporates, forms clouds, and eventually falls as rain. Once students understand the scientific explanation, the teacher will introduce relevant Qur'anic verses and explain how these verses support the scientific concepts. The teacher may also ask students to conduct a simple experiment that allows them to observe the process firsthand while connecting it to religious teachings.

The process of Qur'anic verse inventory carried out by the Islamic Religious Education (PAI)

curriculum team at SD Manaaratul Iman demonstrates a unique approach to integrating religion and science in learning. Through a series of stages—from initial identification to evaluation and refinement—the curriculum team has successfully created learning materials that support scientific education and strengthen religious values. This approach enables students to better understand the world, where science and religion support and complement each other (Pare & Sihotang, 2023). Through this integration, students are expected to recognize that modern science and Islamic teachings are not opposing forces but two complementary dimensions of the same truth. This approach also aims to develop students who are intellectually capable and spiritually grounded, equipped to face modern challenges with broad knowledge and a deep understanding of religious values. Moreover, this process provides a strong foundation for the ongoing development of the PAI curriculum at SD Manaaratul Iman, allowing for continuous enhancement and adaptation in line with science and technology advancements. In this way, SD Manaaratul Iman can continue to serve as a pioneer in holistic education, one that harmonizes the strengths of modern scientific knowledge with the enduring values taught by Islam.

Inventorying Qur'anic verses used in the Islamic Religious Education (PAI) textbook for SD Manaaratul Iman represents a crucial step in curriculum development that integrates religious teachings with modern scientific knowledge. This textbook is designed to give students a more holistic understanding of the world, where science and religion are not seen as separate entities but as two sides of the same coin.

Within this framework, the inventory process is not merely about identifying verses that align with specific scientific concepts. It also aims to ensure these verses are interpreted spiritually and scientifically correctly. The process encompasses several key stages, including selecting themes, compiling relevant verses, and systematically interpreting those verses using appropriate methodological approaches (Sudarmanto et al., 2023). However, the analysis conducted in this study reveals that the inventory process employed in developing the PAI textbook at SD Manaaratul Iman still contains several shortcomings that require improvement.

The first step in the inventory process is the selection of themes relevant to the learning objectives. In the PAI textbook used at SD Manaaratul Iman, themes are chosen through planning sessions conducted by the curriculum team and teachers. This process involves discussions and consultations with education experts and carefully considering students' needs in understanding the relationship between science and religion.

Some of the main themes featured in the textbook include *"The Qur'an and Biodiversity"*, *"The Water Cycle in the Qur'an"*, *"The Qur'an and Energy Resources"*, and others. These themes were selected due to their strong relevance to scientific concepts taught in school and the significant spiritual values they carry in religious education.

However, one of the weaknesses identified in this study is the lack of systematization in theme selection. Although the selected themes demonstrate good relevance, the selection process was not based on a specific method that could ensure a deeper connection between Qur'anic verses and the scientific concepts addressed. As a result, some themes were developed without thoroughly considering the coherence between the verses and the scientific content, which ultimately reduces the effectiveness of integrating science and religion.

Once the themes are determined, the next step involves gathering Qur'anic verses relevant to those themes. The PAI textbook used at SD Manaaratul Iman is carried out through a literature review from various sources, including scientific articles, journals, tafsir texts, and other reference books. The objective is to identify verses that can be used to explain the scientific concepts outlined within each theme. However, this study reveals that the process of collecting verses in the textbook was not conducted systematically. The authors of the PAI textbook did not apply a specific method for gathering the verses; instead, they relied primarily on general knowledge and readily available sources. This lack

of methodological rigor in the data collection phase could lead to inconsistencies in how well the selected verses align with the intended scientific concepts, potentially weakening the effectiveness of the integrative educational approach (El-Badri, 2019). This led to including certain verses that were not always directly relevant or supportive of the selected themes.

For example, in the theme of "Energy Sources," the verse used is Surah Yasin [36]: 80, which refers to Allah creating fire from green trees. Although this verse can be associated with the concept of energy, the explanation provided in the book remains largely symbolic and lacks a deeper exploration of the underlying scientific principles. This reflects a limitation in the verse collection process, which did not thoroughly consider scientific relevance.

One recommended approach to address this issue is the *maudhu'i* (thematic) method developed by al-Farmawi. This method involves collecting verses with a similar theme, followed by a detailed analysis to identify connections within the chosen topic's context. This method would make the verses more systematic and thematically coherent, leading to a more integrated and comprehensive understanding of the relationship between science and religion.

After collecting relevant verses, the next step is organizing and arranging them logically and coherently. In the PAI book used at SD Manaaratul Iman, the arrangement of verses is based on predetermined themes; however, the sequence in which they are presented does not always follow a clear logical flow or chronological order of revelation. This lack of structure may hinder students' grasp of the interconnectedness between verses and the scientific concepts taught. A more deliberate organization—either by logical progression of ideas or by aligning with the chronological development of the subject matter—would enhance the clarity and impact of the integrative approach.

According to the *maudhu'i* (thematic) method, the verses that have been collected should be arranged either in the chronological order of their revelation or based on their thematic relevance. This structured approach is crucial to providing students with a clearer and deeper context for understanding the relationship between Qur'anic verses and the scientific concepts being taught (N. Inayati et al., 2024). However, this study found that in many cases, the verses were arranged randomly without considering the logical and thematic relationships between them.

For example, in the theme "The Qur'an and the Five Senses," the verses are taken from various surahs without a clear order. Although each verse is relevant to the topic discussed, the lack of structured presentation may cause students to struggle to understand the relationship between the verses in scientific learning. This disorder reduces the coherence and consistency in delivering the theme, making the integrating science and religion less optimal.

In addition, this study also found that the authors of the PAI book for SD Manaaratul Iman did not always include essential information such as *asbabun nuzul* (the reasons for the revelation of the verses) and the historical context relevant to the verses being discussed. This results in a lack of deep understanding of the meaning and relevance of the verses in a scientific context. By providing historical context and *asbabun nuzul*, students can better understand the Qur'anic verses and see how religious teachings are relevant to the scientific knowledge they are learning.

Critical Review and Proposed Enhancements to the Integration Process of Qur'anic Verses in the PAI Textbook at SD Manaaratul Iman

After the verses have been compiled, the next step is to analyze and interpret those verses within the context of the predetermined theme. In the PAI textbook for SD Manaaratul Iman, the analysis and interpretation process employs a more symbolic and spiritual approach. Still, it does not strictly adhere to the principles of the *maudhu'i* (thematic) method.

The *maudhu'i* method emphasizes the importance of interpreting Qur'anic verses thematically and systematically, where each verse is examined in depth to identify the interconnections between the

verses and their relevance to the discussed theme (Makhfud, 2017). This interpretation should take into account various aspects such as *munasabah al-ayat* (the coherence between verses), *tartib al-mushaf* (the order of verses in the Qur'anic manuscript), and *tartib al-nuzul* (the chronological order of revelation).

However, this study found that in many cases, the interpretation of verses in the PAI textbook for SD Manaaratul Iman was not conducted systematically and tended to be general. The verses were often interpreted symbolically without in-depth explanations of the relevant scientific concepts, for instance, in the theme of "Changes in the States of Matter," the verse Q.S. Ar-Ra'd [13]: 17 was used to explain the concept, but the interpretation focused more on the spiritual meaning of water and metal, without elaborating on the scientific principles underlying changes in states of matter.

This inconsistency in applying the *maudhu'i* method indicates either a lack of deep understanding of the method or possibly constraints in time and resources during the textbook's development. Nevertheless, this inconsistency affects the quality of integration between science and religion offered in the PAI textbook, reducing its potential to provide a more profound and structured understanding of the discussed themes.

Inventorying verses in the PAI textbook for SD Manaaratul Iman involved the book's authors, the curriculum team, and teachers. The curriculum team played a role in determining the themes and direction of learning, while the teachers contributed input based on their field experience (Suwendi et al., 2024b). This study found that the involvement of the curriculum team and teachers is crucial in ensuring that the inventoried verses are relevant to students' needs and educational objectives. Teachers, as the direct implementers of the curriculum, possess deep insights into how students respond to learning materials and how these materials can be delivered most effectively.

However, the involvement of teachers in the inventory process still appears to be limited. Although teachers provide input regarding the teaching themes and materials, they are not always involved in collecting and interpreting the verses. This leads to a lack of alignment between the materials developed and actual classroom experiences, which can affect the effectiveness of material delivery. To improve the quality of the inventory process, it is recommended that teachers be more actively involved in all stages of textbook development, from theme selection to verse interpretation. In this way, the resulting materials will be more aligned with students' needs and easier for them to understand.

Inventorying the Qur'anic verses used in the PAI textbook for SD Manaaratul Iman should not be considered complete once the book is printed. Instead, this process must be evaluated regularly to ensure that the material remains relevant to the development of scientific knowledge and the educational needs of students. This study indicates that several aspects of the inventory process need to be reviewed and revised, including the methods of collecting verses, the organization and arrangement of the verses, and their interpretation within a scientific context. This evaluation can be done through feedback from teachers, students, education experts, and more in-depth literature studies on the latest developments in science and religious education. Additionally, revisions must be made to address deficiencies in the previous inventory process. For instance, if it is found that relevant verses do not adequately support certain themes, additional verses must be identified, or the theme itself revised. If verse interpretations are insufficiently in-depth or irrelevant to the scientific context, then those interpretations should be revised with the involvement of tafsir scholars or scientists.

Based on the analysis, several recommendations can be made to systematically improve the quality of the Qur'anic verse inventory process in the PAI textbook for SD Manaaratul Iman: applying the maudhu'i (thematic) method. Collecting, organizing, and interpreting the verses should be carried out using the *maudhu'i* method in a more structured and systematic manner. This approach will ensure that the selected verses are relevant to the discussed themes and provide a deeper understanding of the relationship between science and religion (Harahap, 2023).

Enhancing teacher involvement in the development process**.** Teachers should be more actively

involved in all stages of textbook development, from theme selection to the interpretation of verses. Their involvement will ensure that the material compiled is more aligned with students' needs and is easier for them to understand (Nurhidin, 2022). Integrating historical context and *asbabun nuzul***.** In the interpretation process of the verses, it is recommended to include information on *asbabun nuzul* (the circumstances of revelation) and relevant historical context. This will provide a deeper understanding of the meaning and relevance of the verses within a scientific context.

Conducting regular evaluations and revisions**.** The inventory process should be regularly evaluated and revised to ensure that the compiled material remains relevant to the development of scientific knowledge and the educational needs of students. This evaluation can be carried out through feedback from teachers, students, and education experts. Involving scholars of tafsir and scientists in interpreting verses is also crucial to ensure that the interpretations align with scientific contexts. Their involvement in the interpretation process will help ensure that the interpretations are consistent with established scientific principles and offer deeper insight into the relationship between science and religion.

Inventorying Qur'anic verses in the PAI textbook of SD Manaaratul Iman is a critical step in integrating religious teachings with modern scientific knowledge. However, this study indicates several weaknesses in the process, including a lack of systematization in theme selection, the use of verses that are not always relevant, an unstructured arrangement of verses, and shallow interpretations.

To enhance the quality of integration between science and religion, it is recommended that the inventory process be conducted using the *maudhu'i* (thematic) method more systematically, involve teachers and tafsir experts in every stage of development, and carry out regular evaluations and revisions. In doing so, the PAI textbook of SD Manaaratul Iman can offer a more in-depth and structured understanding of the relationship between science and religion, and better fulfill the goals of holistic education at SD Manaaratul Iman.

4. CONCLUSION

This study finds that inventorying Qur'anic verses in writing the integrative Islamic Religious Education (PAI) textbook at SD Manaaratul Iman is significant, yet it still faces various methodological challenges. The main findings indicate that although there have been initiatives to connect Qur'anic verses with modern scientific concepts, the process has not been carried out systematically and has yet to fully apply the *tafsir maudhu'i* (thematic interpretation) method consistently. The interpretation of verses tends to be symbolic and spiritual, lacking sufficient scientific depth, while the involvement of teachers and integration of historical context (*asbābun nuzūl*) also remain limited.

The implication of this research lies in its concrete effort to document and evaluate a model of religion–science integration within the Islamic primary education curriculum—an area that has often been discussed only at a philosophical or theoretical level. Through the hermeneutic approach of Seyyed Hossein Nasr, this study strengthens the argument that knowledge and revelation can support each other when framed within a holistic educational approach.

However, this research has limitations, particularly due to its reliance on document analysis from a single educational institution, which restricts the generalizability of the findings. Therefore, future research is recommended to include direct classroom observations, expand the study to other Islamic schools, and quantitatively assess the effectiveness of this integration on students' learning outcomes. Regular evaluation, the involvement of scholars of tafsir and scientists to ensure systematic application of the *maudhu'i* method, and teacher training in thematic approaches are also key recommendations to ensure that the integration of religion and science does not remain conceptual but evolves into a transformative and contextually relevant Islamic curriculum model.

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