Harmonizing Islam, Culture, and Science Education: Efforts to Prevent the Secularization of Religious and General Knowledge

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ABSTRACT
This study aimed to elucidate the Islamic religious values present in science education in schools. Islamic Education (PAI) serves as a benchmark in every aspect of education in schools, particularly regarding the morality of students. Furthermore, Islamic Education is consistently juxtaposed with various other subjects, with the hope that the subjects accompanying it can impart positive values to the students. The research methodology employed was a qualitative approach using a literature review. Descriptive content analysis was utilized to analyze the data, enabling the results to address the research questions. The findings indicate that Islamic values in science education can provide a paradigm regarding the holistic concept of human beings and instill the importance of morality in every learning process for students. Therefore, Islamic content and science education can coexist to achieve good learning quality and cultivate morally upright and virtuous students.

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1. INTRODUCTION

Science education, commonly referred to as Natural Sciences (IPA), as commonly known in public schools, currently exhibits a highly secular nature (Purnomo et al., 2022). Scientific knowledge is often perceived as distant from theological values. However, fundamentally, Islam has never separated faith from knowledge. The current implementation of education is detrimental to Islamic communities (Mansir, 2022). The educational systems currently in place have not yet addressed the fundamental principles of Islamic education. This dualism is prominent and results in the loss of theological values from the very foundations of knowledge (Hemmet, 2023). Ultimately, what initially should have been a science with divine and Islamic values has transformed into a science that no longer includes its Creator in discussions about the knowledge itself.

Moreover, this dualistic nature extends to the national education system, as evidenced by the formation of terms such as religious and secular schools. This phenomenon is not limited to schools alone but extends to various fields of knowledge, including religious and secular studies (Ruslan & Irham, n.d.). This situation is indeed detrimental to the Islamic community, as it suggests a division between traditions and knowledge, which contradicts Islam’s principle of integrating religion and knowledge. Throughout history, Islam has maintained that religious individuals are inherently knowledgeable. Islam is a divine revelation intended for humanity, with a profound aim to instill mercy in the universe and consistently bring benefit to human life in the world (Mansir, 2020).

Islam is fundamentally grounded in the Quran. For Muslim scientists, the Quran serves as a source of knowledge across various disciplines (Baidhawy, 2007). It is widely acknowledged that Islamic jurisprudence, such as fiqh, theology, kalam, and philosophy, coexists without rejecting general sciences, including physics, medicine, astronomy, and others. Conversely, modern science rejects the role of religion in its inquiry, thus distancing itself from religious doctrines. The positions of religion in Islamic and modern sciences may seem similar but are fundamentally different. Islam fundamentally adheres to religion, while modern science does not strictly adhere to anything, or in other words, does not adhere strictly to religion (Mansour, 2011). Essentially, religion and science cannot be separated. In ancient times, Islam played a crucial role in the advancement of knowledge in the medieval period, even boasting the most renowned educational system globally at that time.

Several Islamic cities around the world became centers for the development and progress of science (Hasani Ahmad Said et al., 2020). During the medieval period, Muslim scholars developed knowledge with distinct characteristics different from modern science. Its distinctive features and nature were enveloped in a structured monotheism within the framework of knowledge (Hasim et al., 2020). The integrated monotheistic consciousness of Muslim scientists is intricately intertwined with scientific knowledge and remains compatible with the knowledge they cultivated. It could be said that faith and knowledge inherently possess strong truths and are not contradictory. Thus, scientific development remains rooted in monotheism, derived from acknowledgment of the conceptualization of God.

The values of Islamic education encompass all elements that contain positive aspects beneficial to humans in the form of rules and norms found within Islamic education, including ethics, creed, and worship (Muhtarudin & Muhsin, 2019). In this regard, Islamic education pays
sufficient attention to the existence of humanity. Within Islamic education, humans are treated as creatures possessing both soul and body, with cognitive organs such as heart, intellect, and physical abilities. These organs are then guided and directed within Islamic education to develop into holistic individuals. Conversely, according to the perspective of Islamic scholars, Islamic Education must fulfill three basic human needs: spiritual, psychological or intellectual, and physical or biological needs. In meeting these aforementioned needs, efforts must be made, which serve as the primary consideration in the Islamic education process, particularly in establishing fundamental values that the learners will later transform. This is because one of the functions of education is to transform values in Islamic Education, specifically Islamic values (Sarjono, 2005).

Essentially, science encompasses three aspects: firstly, the process or efforts undertaken by humans to understand the universe by following a procedure and conducting precise observations. Secondly, science serves as a product consisting of facts, concepts, principles, laws, theories, and documentation presented in written form as conclusions. Thirdly, the scientific attitude is a disposition that scientists should possess when obtaining scientific products. These three aspects mentioned constitute the essence of science, which is an inseparable whole. Therefore, science educators should thoroughly understand the nature of science to effectively facilitate the learning process (Hafizuddin & Che, 2016).

In the teaching of science across schools and madrasahs, there must be a clear understanding of the nature of science to enable educators and learners alike to fulfill their roles effectively within the science education process (Firmansyah, 2022). Hence, it is expected that teachers understand three essential aspects that cannot be separated from science: process, product, and scientific attitude. Current science teaching practices predominantly focus on conveying or transferring concepts of scientific products to learners without training them on the processes involved in obtaining scientific products and the attitudes necessary to achieve clear and scientific results (Hafizuddin & Che, 2016).

Such issues can arise due to the lack of clear and precise understanding among educators and learners about science (Latifa et al., n.d.). Therefore, understanding science will influence learning about it. If an educator views science as a combination of concepts about nature, their teaching will emphasize the delivery of information to ensure that learners understand these scientific concepts. Conversely, if an educator perceives science as various research activities, their teaching will tend to emphasize experimentation and exploration processes. In this regard, neither perspective is fundamentally incorrect, as science encompasses both aspects along with others (Hafizuddin & Che, 2016).
2. METHODS

In this study, the method employed was a qualitative approach, specifically characterized as a literature review. This method involves a thorough examination of literature, wherein all discussions are sourced from previous international and national journals addressing the theme under investigation, juxtaposed with findings from other relevant journals, including research books pertinent to the research topic. This process aims to generate a conceptual framework or idea. Additionally, the data collected undergoes reading, analysis, and description processes to address the research problems. Therefore, content analysis is crucial as an analytical tool to examine and dissect the research issues. The data analysis is conducted sequentially and systematically, developing constructive criticism through descriptive analysis. Consequently, this approach ultimately yields ideas while addressing the research problems.

3. RESULTS AND DISCUSSION

In the contemporary world, it is widely acknowledged that there are minimal boundaries between nations (Akrim, 2022). Principles of globalization and universality prevail, impacting nearly all aspects of human life, including education. Hence, distinguishing between primary and secondary needs becomes increasingly challenging. Consumerism pervades every facet of human existence, as individuals are immersed in the glittering realm of knowledge and technology (Arifansyah et al., 2023). The flow of information facilitated by advanced technology, audiovisual media, communication, and transportation has obliterated geographical boundaries between nations. Humans cannot possibly gather this information by themselves. The modernization developments in technology and science have shaped societal thinking, influencing consumer lifestyles and permeating the realm of general education, including Islamic education (Mansir, 2022). In this context, scientific and technological education (natural sciences) is readily embraced by our educational system. Secular knowledge claims to be objective, invaluable, and devoid of ulterior motives. However, science has transcended its original purpose. Initially created by humans, science and technology have evolved into masters of humanity itself. Science has supplanted divine revelation as their guiding principle in life. In the realm of education, it appears that the existing scientific knowledge is divided into two categories: general knowledge instruction and religious instruction. This is because Western culture and the global education system exert significant influence, transforming national values and education systems (Ishak, 2015).

3.1. Concept of Islamic Values and Education

The concept of Religious Values and Islamic Education consists of three elements, including values, education, and Islam (Badruzaman & Nur Ahmad, 2022). Although they carry distinct meanings, together, they form a coherent framework related to the essence of Islamic education. Values refer to inherent attributes associated with a subject, related to a subject that can produce meaning and possess abstract qualities that are beneficial to humans as a guide to behavior (Zein et al., 2017). Another perspective on values, according to Milton and James Bank, is a type of belief within the scope of belief systems, where one must act or refrain from actions related to something that is deemed appropriate or inappropriate to do, possess, or believe
(Sarjono, 2005). Therefore, values are beliefs in behavior or actions that are in accordance with what is believed to be beneficial.

Islamic education, as explained by Al-Syaibani, for example, elucidates the process of transforming human behavior in their personal lives, society, and the surrounding environment through teaching as a fundamental activity and a profession among the core professions of society (Baderiah & Munawir, 2024). This process emphasizes shifting behavior from negative to positive, from minimal to maximal, and from passive to active, facilitated through the educational process. The process of behavior change is carried out through the learning process. This is because behavior change occurs not only in individuals but also in society, resulting in personal and social morals. Essentially, the values of Islamic education encompass various characteristics or aspects related to Islamic education, which are used as a basis for humans to achieve the goal of serving Allah SWT. These values should be instilled in children from an early age, as it is the appropriate time to cultivate good habits in them (Zein et al., 2017).

The core values depict the integrity of a system. When values are embedded within a system, they delineate the paradigm, identity, and overarching concepts of that system (Awang et al., 2023). Therefore, the basic values of Islamic education signify various educational concepts formed and crafted based on Islamic teachings as the ethical, moral, and operational foundation of education. In this context, the basic values of Islamic education distinguish it from other educational models while simultaneously showcasing its unique characteristics (Sarjono, 2005). The basic values of Islamic education entail recognition of the existence of humans with all their potential. Muslim education scholars concur that the theory and practice of Islamic education should be grounded in fundamental conceptions of humanity. This existence is related to humans’ position as stewards and servants, necessitating an educational program that offers comprehensive mastery of knowledge. Conversely, human existence demands an educational program that leads to the concept of equilibrium, blending aqâliyyah and qalbiyyah development seamlessly (Sarjono, 2005).

For Islamic education to thrive, the concept of humanity and its role in the universe must be integrated cohesively into educational concepts and theories through approaches encompassing divine revelation, empirical scholarship, and philosophical rationality (Syaifuddin, 2022). Scholarly and philosophical approaches merely serve as mediums to comprehend the absolute messages of God, whether through His textual (qur'âniyyah) or contextual (kauniyyah) verses (Sarjono, 2005). According to Suprayogo, there is still a prevalent belief that religion and science are two elements that cannot be reconciled, as they each have their separate domains, distinct in terms of formal-material objects, research methods, truth criteria, and the roles played by scholars. Another expression suggests that science disregards religion due to the perception that science and religion employ different approaches, experiences, and differences that lead to debate. This is because science is closely related to highly abstract experiences (Muspiroh, 2016).

The aforementioned issues arise because this field of study relies on empirically supported data to ascertain what is tangible and what is not. Unlike religion, which is ready to accept the unseen and uncertain based solely on the tangible variables of faith and belief (Purnomo et al., 2022). This paradigm is increasingly lamented and regretted by many, as conscience becomes detached from reason, empathy and sympathy diminish. However, historically, Islamic education has followed an integrative-encyclopedic pattern, contrasting with the religious scholar
The emergence of the terms “dichotomy” and “dualism” in education within the Islamic world not only creates a dichotomy between religious and secular knowledge but also gives rise to disparities, regressions, and decline within the Muslim community (Mansir, 2022). In this context, dichotomy refers to the separation between religious and secular knowledge within the classification of knowledge, while educational dualism refers to the divergence between educational institutions in both their processes and curricula (Mansir, 2021). The impact of dichotomy includes a crisis of values in human civilization, which perceives knowledge as value-free. Meanwhile, the impact of educational dualism results in the decline of Islamic educational institutions that do not emphasize the mastery of empirical knowledge, although they may maintain moral values and the discipline of classical sciences. General education institutions emphasizing empirical knowledge are vulnerable to religious knowledge (Blaik, 2013).

When we discuss the dichotomy of knowledge and the dualism of education, it is closely related to the secularization of scientific knowledge (Mansir, 2022). This secularization, resulting from the dichotomy of knowledge and the dualism of education, can be understood as the separation between intellectual or rational education and spiritual or religious education. The secularization of scientific knowledge through the dichotomy of knowledge can be seen in the acknowledgment within religious knowledge streams that, based on revelation, are not considered scientific knowledge because they cannot be empirically and rationally proven. Consequently, religious knowledge does not receive recognition as a legitimate field of knowledge (Blaik, 2013). The dichotomy of Islamic education represents a dualism in the education system between Islamic Education (PAI) and general education, leading to the separation of religious consciousness and scientific knowledge. In fact, dualism not only separates general subjects from religious subjects but also creates duality in the formal education system in Indonesia, including public schools and madrasahs, each with its own policies and management practices (Blaik, 2013). Here, schools are perceived as institutions for general education managed by the Ministry of Education and Culture, while madrasahs are perceived as institutions that provide religious education managed by the Ministry of Religious Affairs (Kurniyat, 2018).

In this regard, there arises a perception that schools managed by the Ministry of Education are considered to be secular, non-religious, or secular but progressive, advanced, and modern (Mansir, 2022). Meanwhile, schools managed by the Ministry of Religious Affairs are perceived as religious and devout but lagging, closed to scientific and technological progress, and traditional. This perception is not entirely accurate, yet not entirely incorrect either. On one hand, some schools managed by the Ministry of Education remain backward, traditional, and impoverished. On the other hand, there are modern Islamic schools that are internationally standardized and advanced. This dichotomy persists but requires mediation and convergence so that both religion and science are taught, mastered, and applied by every student (Kurniyat, 2018).

If the dichotomous educational system exists within Islamic education, it will lead to the fragmentation of Islamic civilization and negate the comprehensive nature of Islamic civilization (Karim et al., 2023). The dichotomy and dualism in Indonesia’s educational system are certainly inseparable from the nation’s historical issues. This is due to the educational system employed by the government since independence until now, which is the result of the accumulation of the nation’s resistance to previous educational history and politics and adaptation to the environment.
in each era (Kurniyat, 2018). Therefore, scholars have identified that the outcomes of religious education are required to fulfill three roles:

1. Essential role: This means that religious guidance should be able to develop and strengthen the inner values of each individual. Islamic institutions need to be adept at examining productive values that are constructive for the holistic development of humanity. To fulfill this role, religious education must reconsider the distinctive Islamic mindset: the treasures of the Qur’an, Hadith, Tradition, and local wisdom. Discrimination, racism, anarchism, and immorality are never justified religiously. The direction of the curriculum, strategies, methods, and educational role models should be directed toward strengthening the unity of human values. The content of religious education, if possible, should be linked to the religious mission of humanism and the glorification of God. Therefore, if an Islamic educational institution (madrasah and Islamic boarding school), which is laden with a theologically anthropocentric mission, undermines human values, it is counterproductive.

2. Instrumental role: As a humanities education, it serves as a means for students to practice rituals and social service by eliminating all the possibilities of goodness they have stored. In such a context, educators must have a strong paradigm. Unfortunately, our society, and even some educators, acknowledge that education is nothing more than brutal dictates that ignore students’ potential. Education, which should be a means, has changed its function as an end. Education only focuses on social class enhancement, denies essential values, and seems unrelated to addressing existing problems, especially during the previous COVID-19 pandemic. Instead of providing solutions, education exacerbates demoralization and worsens problems. In short, education exists for the people themselves, for the people, and not through the people, but for the business interests of education politicians.

3. Constructive role: Islamic Education institutions are needed to build the Islamic character of students, manifested in harmonious, peaceful lives in diversity. Additionally, religious education plays a constructive role in conflict resolution. Through Islamic education, such as Islamic boarding schools, and by participating in flag-raising ceremonies as part of Indonesian Independence Day, national identity is formed. The hadith command during the events of November 10 in Surabaya. These facts are formed through their respective learning processes.

Aligning the three roles mentioned above involves integrating various components to harness Islamic education. Educators need to train, support, and guide students to reduce their cognitive advantages in education and learning and to optimize their potential. Islamic education that balances personality with skilled literacy skills makes it very wise for students to identify and solve existing problems (dan Tantangan Pendidikan Islam di Tengah Pandemi Senata Adi Prasetia & Fahmi, 2020).
3.2. Integration of Science and Islamic Values in Natural Science Learning

Librarians In the process of learning, quality becomes an absolute necessity. Therefore, one of the educational experts' offerings is the integration of science and religion into the learning process (Mansir, 2022). Science and religion are unified disciplines that are interrelated, knowledge that is inseparable from the science of the Qur’an and Hadith, which contain absolute truths. Religion and Science must exist side by side, as they both share similarities in their missions and fundamental differences, which will be associated with their respective cores (Jeklin, 2016). The understanding of integrating Islamic values into science is indirectly present in the Qur’an. The Qur’an does not differentiate between natural science and religious knowledge. However, many verses in the Qur’an emphasize that humans should always reflect on what happens in nature to strengthen their religious beliefs (Q.S. al-Anbiyaa: 30). Natural science is also not separate from religion. In this regard, science is an integral part of Islam.

The Qur’an states that natural science, which is the science of sustaining human life, is an integral part of religion. Science teaches humans how to care for nature, manage it, and process to produce something to meet their living needs. At the same time, religion also directs humans towards a value system. Religion teaches the value system of piety towards creation and the value of goodness towards others. The crucial aspect to note is the statement that the Qur’an originates from Allah SWT, which holds absolute truth. With this, the Qur’an can be used as a benchmark to test scientific concepts, and conversely, if it turns out that science contradicts the Qur’an, then the limitations of human-developed investigative methods can be ensured. Therefore, there are two different approaches between natural science and religion. In religion, we believe in something based on faith, while science believes in something based on what they find and their reasoning. Although the truth in religion is eternal, the truth in science is temporary or tentative.

The constitutional mandate implies the necessity of integrating religious values into education, especially in the field of science (Mansir, 2022). However, in reality, there are indications that the inappropriate division into two conflicting groups in science education in schools separated from the integration of Islamic values. Until now, such situations seem to be overlooked, resulting in students becoming knowledgeable but lacking faith and morals. Therefore, there is a need for value integration in science education by incorporating Islamic values to make them interrelated. For example, science and religious values applied are interconnected or linked to the material. It is hoped that Islamic values are present in every science learning process because they are essential for shaping students who are faithful and pious (Jeklin, 2016).

Likewise, as outlined in the Republic of Indonesia Law Number 20 of 2003, Chapter 1, Article 1, pertaining to Indonesian education, specifically in clauses 1 and 2, there is an implicit call for the integration of religious values into the educational framework. This underscores the dual purpose of education in Indonesia: not only to foster intellectual development but also to instill noble character traits in individuals. However, current school practices tend to prioritize theoretical constructs, formulas, and subjects within a general academic framework, while the presence of religious education is notably scarce. Consequently, the educational landscape in Indonesia appears to be veering towards secularism, fostering perceptions within society that question the utility of intellectual prowess unaccompanied by moral integrity. Thus, it becomes evident that religious values play an indispensable role in shaping the educational journey of
students, as genuine faith and ethical conduct cannot be nurtured without religious guidance (Jeklin, 2016).

The implementation of education in schools, especially under the auspices of the Ministry of Education, still receives various criticisms and negative responses (Mansir, 2021) because there are still indications of a dichotomous fluctuation between madrasahs and public schools in instilling Islamic values in both institutions. Due to madrasahs being institutions under the auspices of the Ministry of Religion because they are fundamentally Islamic. Until now, the Islamic generation has been neglected in public schools, becoming knowledgeable but lacking faith (Jeklin, 2016). In the reality that occurs, it is a misguided paradigm to limit religious knowledge only to madrasah or Islamic boarding school institutions. Slowly, it will distance students in public schools from the cultivation of faith and piety. However, schools seem unaware of this. If this continues to be allowed, this paradigm will erode the minds of the Islamic generation (Jeklin, 2016).

The apparent reality in the field of education, particularly in schools under the auspices of the Ministry of Education, seems to focus solely on the enhancement of intellectual intelligence, primarily emphasizing cognitive development. This phenomenon is evident in the curriculum of public schools, where the subject of Islamic Education (PAI) is included, aiming to stimulate students’ spiritual intelligence. However, unfortunately, PAI courses often prove ineffective in cultivating the moral character of the Islamic generation (Jeklin, 2016). Addressing this issue is paramount, emphasizing the need for moral development not only during Islamic Education classes but also across other subjects, particularly in science, which can be linked to Islamic education (Mansir, 2022). Many scholars who study these phenomena draw upon the teachings of the Qur’an. This integration is crucial, given the ineffectiveness of Islamic Education in enhancing students’ spiritual awareness.

Furthermore, issues such as the insufficient improvement in attitudes and behaviors among some students are often attributed to the failure of the education system to instill religious moral values effectively (Mansir, 2022). This perspective is linked to the realities faced by the Indonesian nation and its various challenges, leading some experts to assert that the multidimensional crisis plaguing the nation is partly attributable to the shortcomings of the Indonesian education system (Jeklin, 2016). Many of the problems mentioned above stem from the inability of schools to alter or guide student behavior for the better effectively. However, schools cannot be solely blamed, as students may also face internal challenges. This is because students come from diverse family backgrounds, cultures, and social environments, all of which significantly influence their behavioral development.

The inclusion of religious education material in the curriculum and its implementation in the learning process at schools is still perceived as insufficient in instilling good spiritual values in students (Mansir, 2022). The decline in the morality and character of students is attributed to the overloaded curriculum of religious education, which prioritizes cognitive aspects over building comprehensive spiritual awareness (Jeklin, 2016). The issues raised often lead to questions from the public about the role of education in schools in nurturing faith and piety, with the expectation that it can transform the character and personality of children in line with the goals of Indonesian education (Jeklin, 2016). It is understandable that such questions, along with societal assumptions, create a common perception that the cultivation of national faith and piety is primarily the responsibility of education in schools, independent of family education.
Therefore, all parties should strive to improve the quality of education in schools and work to reduce or eliminate existing shortcomings.

One alternative solution to the aforementioned issues is to instill spiritual values in every subject and extracurricular activities, and create conducive environments through collaboration between schools, parents, and the community. Furthermore, in enhancing faith and piety, educators can integrate religious values into subjects without altering the existing curriculum (Jeklin, 2016). This can be achieved through support and collective efforts from relevant parties, ensuring that the resulting generations embody moral excellence. Fundamentally, the integration of Islamic educational values in science learning should maintain balance and applicability, as both aspects are mutually beneficial and essential in contemporary life (Mansir, 2022). If education seeks to have a soul, it should not forsake either science or religion. In the practice of Islamic education, learning should be holistic because Islam does not recognize ‘dualistic-dichotomous scholarship.’ Science and religion are in a balanced position, as stated in the Qur’an.

In the practical implementation of Islamic Education, there have been failures (Karim et al., 2023). This is because education, which should focus on the cognitive aspect, often neglects the affective and conative-volitional aspects, including the willingness and determination to practice religious values. This results in a gap between knowledge and experience in religious life (Chanifudin & Nuriyati, 2020). Efforts are needed to integrate religious values with science in educational settings, especially in schools and madrasahs. Currently, the scientific system fails to fulfill both material and spiritual needs because modern science incorporates Western values that contradict Islamic values. It is understood that the model of integrating science with Islam differs: science deals with scientific facts, while religion addresses divine values. Additionally, their modes of thought differ; science is empirical and objective, while religion is intuitive and religious (Chanifudin & Nuriyati, 2020).

Thus, the efforts that need to be undertaken are as follows;
1. Making the Qur’an the primary source or foundation for achieving general knowledge resulting from observation and other sources, which serve as supporting evidence to increase belief in Allah SWT
2. Expanding the scope of Islamic studies and avoiding the dichotomy of religious knowledge, as there is no such dichotomy in Islam since all knowledge is important to be studied
3. Nurturing the character of students to use their intellect and reasoning in understanding natural phenomena, which serve as evidence of the Oneness and power of Allah SWT
4. Seeking and studying Qur’anic verses related to science, as the Qur’an is a suitable source for science (Chanifudin & Nuriyati, 2020).

Actually, science and religion have a relationship that, from the perspective of Islam, shares the same metaphysical basis with the goal that knowledge revealed or sought is an effort to uncover the signs of God and to make them a motivation in seeking mathematical and natural knowledge, so as to understand the signs that God has revealed regarding this universe (Baderiah & Munawir, 2024). This experience is part of a religious experience. By studying both (science and religion), the scholarship will lead to positive change and can interpret knowledge and should be directed to all who want to learn it (Chanifudin & Nuriyati, 2020). The implications of the continuous development of science are consistent with the values of Islamic education (Mansir,
2021). The steps used in integrating science education with the values of Islamic education in learning prepared by educators are as follows:

1. Choosing or determining the theme to be studied. In this case, the theme used should have broad coverage with the hope that students can investigate various concepts related to the theme, including investigating verses of the Qur’an related to the theme.

2. Setting the concepts to be developed and then making a list of them. Then, these concepts are used as a starting point in determining learning activities. Thus, the concepts determined must be directly related to the theme.

3. Determining the activities that will be carried out in order to investigate the concepts listed. It needs to be ensured that each concept studied requires one or more activities related to the theme.

4. Identifying which materials are related to a particular concept. Thus, integration of various fields of study or knowledge has occurred to highlight the concept.

5. Reviewing the activities that have been carried out to assess whether they are effective or not.

6. Organizing the material from the themes that have been studied to facilitate its distribution and utilization in activities to be carried out both individually and in groups.

7. Setting a sequence of activities in their implementation in the classroom, starting with the easiest or simplest ones first so that students become accustomed to the activities.

8. Hold further discussions with the aim of enhancing the student's ability to describe what they have done and draw conclusions from the activities.

Based on the aforementioned steps, preparation by subject teachers is necessary, whether in the realm of religious or general education, especially in science (Mansir, 2022). In the planning of the learning process that connects material with science or with religion, the preparation of the Lesson Preparation Design, the materials to be taught, and the instructional media are essential. In preparing an integrated Lesson Preparation Design, it is necessary to determine the theme in subjects related to science with religious material. Then, determine the indicators and objectives to be achieved. Thus, the learning modules used for religious education are already integrated with science and vice versa (Chanifudin & Nuriyati, 2020). In the learning process that has been integrated between religion and science, this integration is generally done incidentally, and the nature of the core subjects must be maintained. Thus, each integration of science material with religion can be classified as interconnected or related.

CONCLUSION

The education system in Indonesia still holds the paradigm that Islamic Education and science are separate and different and cannot be united. This can be seen in schools that are unaware of the dichotomy between these two aspects, resulting in the separation of religious education from science. However, they are interrelated in shaping students into individuals with intellectual intelligence and moral character. In the implementation of education, especially under the auspices of the Ministry of Education, there are still indications of a dichotomous fluctuation between madrasahs and public schools in instilling Islamic values in both educational institutions. This is because madrasahs under the Ministry of Religious Affairs are considered and indeed are fundamental and religious institutions. If this situation continues without efforts to change it, it...
will affect students who have intellectual intelligence but lack religious knowledge, which in turn affects their morality. An alternative solution to this problem is that moral improvement should not only occur during Islamic Education classes but also in other subjects, especially science, which should be linked with Islamic education. This is crucial, considering that Islamic Education is often ineffective in enhancing students’ spiritual awareness. Thus, efforts are needed to integrate or combine religious values with science, particularly in educational environments such as schools and madrasahs.

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