



INTEGRATION OF SCIENCE IN THE PERSPECTIVE OF ISLAMIC EDUCATIONAL PHILOSOPHY AND ITS IMPLICATIONS IN REALIZING HOLISTIC EDUCATION

Vivi Desfita¹, Salminawati², Usiono³

¹Dinas Pendidikan Kabupaten Langkat, Sumatera Utara, Indonesia, ^{2,3}Universitas Islam Negeri Sumatera Utara, Indonesia

Email: vividesfita86@gmail.com¹, salminawati@uinsu.ac.id², usiono@uinsu.ac.id³

Abstract: This study examines the concept of integration of knowledge in the context of Islamic education, focusing on the perspective of Islamic educational philosophy. The main objective of this study is to understand the meaning and relevance of integrating knowledge within the framework of Islamic thought to realize holistic education. This study uses a literature analysis method, exploring the theoretical and practical understanding of integrating knowledge from related primary and secondary sources. The results of this study indicate that integration of knowledge according to the perspective of Islamic educational philosophy is not only about combining curricula but also involves a holistic learning experience that combines spiritual, intellectual, and practical aspects. A deep understanding of Islamic values is integrated into the educational process to form individuals who are not only academically competent but also have good morals and strong spiritual awareness. This study contributes to the literature on Islamic education by providing a deeper understanding of the concept of integration of knowledge and a basis for developing educational strategies that focus on holism and harmony between knowledge and spiritual values in the context of Islamic education.

Keywords: Integration, Science, Philosophy

Abstrak: Penelitian ini mengkaji konsep integrasi ilmu dalam konteks pendidikan Islam, dengan fokus pada perspektif filsafat pendidikan Islam. Tujuan utama penelitian ini adalah untuk memahami makna dan relevansi integrasi ilmu dalam kerangka pemikiran Islam untuk mewujudkan pendidikan yang holistik. Penelitian ini menggunakan metode analisis literatur, menggali pemahaman teoritis dan praktis mengenai integrasi ilmu dari sumber-sumber primer dan sekunder yang terkait. Hasil penelitian ini menunjukkan bahwa integrasi ilmu menurut perspektif filsafat pendidikan Islam bukan hanya tentang penggabungan kurikulum, tetapi juga melibatkan pengalaman belajar holistik yang menggabungkan aspek spiritual, intelektual, dan praktis. Pemahaman yang mendalam terhadap nilai-nilai Islam diintegrasikan ke dalam proses pendidikan untuk membentuk individu yang tidak hanya kompeten secara akademis tetapi juga memiliki akhlak yang baik dan kesadaran spiritual yang kuat. Penelitian ini berkontribusi pada literatur tentang pendidikan Islam dengan memberikan pemahaman yang lebih mendalam tentang konsep integrasi ilmu, serta memberikan dasar bagi pengembangan strategi pendidikan yang berfokus pada holisme dan keselarasan antara ilmu pengetahuan dan nilai-nilai spiritual dalam konteks pendidikan Islam.

Kata Kunci: Integrasi, Ilmu pengetahuan, Filsafat

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INTRODUCTION

Education is a fundamental aspect of the development of individuals and society. In the context of globalization and the rapid development of science, it is important for the education system to not only focus on knowledge transfer but also shape the character and personality of learners. It is in line with the concept of holistic education, which

emphasizes that education should include cognitive, affective, and psychomotor aspects in a balanced manner (Hysa & Jakupaj, 2024).

Islamic philosophy of education plays an important role in shaping a holistic view of education. In Islamic teachings, education is understood as a process of transferring knowledge and a way to get closer to God and form noble characters. Thus, combining science with Islamic values becomes very important to achieve the broader goal of education: to create knowledgeable individuals with good morals who build a better society per Islamic principles. The philosophy of Islamic education also has a central role in formulating a holistic and spiritually based approach to education. Education in Islam focuses on intellectual aspects and includes individuals' moral, spiritual, and social development (Hamdi et al., 2023). Thus, the educational process is seen as a way to internalize religious values, form a personality balanced between the worldly and ukhrawi, and direct individuals towards perfection in worship and behavior. Therefore, integrating general knowledge with the principles of Islamic education becomes very important to achieve more comprehensive educational goals. The goal is to create human beings who are not only academically intelligent but also have strong ethics, can contribute positively to society, and always make divine values the main foundation in every aspect of life (Irfan & Sain, 2024).

Integration of science from the perspective of the Islamic philosophy of education is an approach that emphasizes the importance of combining various disciplines to achieve a more complete understanding of reality. In the context of education, this integration requires collaboration between general science and religious science, which aims to create individuals who are not only intellectually intelligent but also have good morals and strong spirituality. In its implementation, science integration faces various challenges. Firstly, there is a tendency to separate religious science from general science, which results in students' lack of understanding of how the two types of science complement each other. Secondly, the lack of collaboration between educators in different disciplines can hinder the development of a comprehensive and integrative curriculum. Thirdly, the resistance of some educators who still consider religious science superior to general science can create a gap between the two (Mufid, 2013). Integrating science in Islamic education can provide a new perspective on how science and religious teachings complement each other. This approach opens up opportunities for curriculum development that focuses not only on academic aspects but also on developing students' character, morals, and spirituality. Thus, education is expected to produce intellectually intelligent individuals and those with high ethics and morals (Abdullah, 2022).

Holistic education based on the integration of science and Islamic education philosophy will produce individuals who are competent in their fields and have high social and spiritual awareness. It is particularly important given modern society's challenges, including increasingly complex moral, ethical, and social issues. In this context, education must be able to provide both academic and moral solutions (Fauziyah et al., 2023). Holistic education based on the integration of science and Islamic education philosophy focuses on the development of cognitive and intellectual abilities alone and on the formation of a whole person involving affective, spiritual, and social aspects. In Islamic education, knowledge is considered a means to get closer to God, not the ultimate

goal. Therefore, the educational process must be directed towards the search for deeper meaning, where knowledge and charity complement each other in creating human beings with noble character (Azzahra et al., 2023).

The urgency of research on integrating science from the perspective of Islamic education philosophy and its implications for realizing holistic education is very important. In the era of globalization and the rapid development of science, education cannot be seen as a separate process from various disciplines. Holistic education emphasizes the importance of developing learners' cognitive, affective, and psychomotor aspects so that integrating science becomes the key to creating a generation that is academically intelligent and has strong moral and spiritual values. In the context of Islamic education, the integration of science provides a solid philosophical basis for developing a comprehensive understanding. The philosophy of Islamic education emphasizes the importance of knowledge as a means to achieve the good and benefit of the people. By integrating science, Islamic education can provide a more comprehensive approach to learner character development, which includes religious values, ethics, and social responsibility. It is in line with the goal of Islamic education, which is to create knowledgeable individuals with noble character.

The implications of this study are very broad, especially in the development of curriculum and teaching strategies. By understanding the importance of science integration in education, educators are expected to design a more inclusive and relevant curriculum, which includes various disciplines and facilitates the relationship between religious knowledge and science. It will encourage students to think critically and creatively and be able to apply the knowledge they gain in everyday life. In addition, this study also has implications for educators' training and professional development. Teachers and educators need to be equipped with a deep understanding of science integration as well as the ability to teach moral and ethical values in the context of education. Thus, they can become effective agents of change in creating a holistic learning environment and supporting the development of student character. By raising the issues above, this study is expected to make a significant contribution to the development of holistic education based on the integration of science and Islamic educational philosophy. The results of this study are expected to be a reference for educational policy developers, educational practitioners, and researchers in the field of education.

This study aims to provide new insights into how the integration of science from the perspective of Islamic educational philosophy can provide solutions to the challenges of education in the modern era. Thus, it is hoped that education can be realized that not only produces intelligent individuals but also has good character and contributes positively to society.

LITERATURE REVIEW

Understanding and Background of Science Integration

Science Integration Linguistically, in the context of Islamic scientific paradigms, integrating science is interpreted as the unification of knowledge (Wahyuni, 2020). Science integration combines or links Islamic science and general science (Mufid, 2014). The integration of science is interpreted as a process of perfecting or unifying sciences

that have been considered dichotomous to produce a pattern of integrative understanding of the science concept (Fatonah, Achadi, & Kurniasih, 2023). The integration in question is to incorporate substantive values from Islam into the scientific building at the levels of epistemology, ontology, and axiology (Yusuf, Luthfan, & Baharudin, 2019). Integration is understood as an attempt at blending between science and religion, as opposed to separation (Simuziya, 2022).

In science integration, the main consciousness developed is that any science based on nature and *qauliah* verses are signs of Allah (verse of Allah). Therefore, it cannot be justified if science leads the study away from God. Science, the study of nature, is related to the concept of *Tawhid* (Oneness of God), as are all other branches of knowledge. In the Islamic view, science and nature are continuous with religion and God.

In the context of the Islamic scientific paradigm, the integration of science is interpreted as the unification of science (Efrinaldi, Andiko, & Taufiqurrahman, 2020). As Ruswandi argued, intergalactic science (the result of integration) is a science that unites (not just combines) God's revelation and the findings of the human mind so that it becomes a scientific principle that will not exclude God (secularism) nor does it exclude humans (Ruswandi, Natsir, & Haryanti, 2022).

As explained by M. Amin Abdullah, the development of IAIN into UIN is an example of this scientific integration. Integration in this concept is where the faculties of religion are maintained. However, the curriculum needs to be developed and adapted to the needs of the IAIN service user community in the era of globalization. The teaching staff and lecturers must also be strengthened with various new methods and approaches. However, at the same time, the general university faculties must also be equipped with more critical and directed religious, spiritual, and moral content in an integrated curriculum format instead of a separate curriculum.

In hindsight, the spirit of integration of science arose because of the current secularization in the West, which led to the separation of science from religion. Linguistically, secularization itself comes from the Latin *speculum* meaning time (time) or "generation," which in terms is interpreted as "the world of the present." In *Classes* Latin Dictionary, as quoted by Shahrin Harahap, the word *speculum* is the opposite of the word eternal, which means "eternal," which denotes the eternal realm. At this point, it is understandable that secularization is an attempt to separate something from religious values, including the separation of science from religion.

On the other hand, the secularization of science is inspired by an excessive attitude toward the use of reason. It is known that the process of secularization of science itself first began when Rene Descartes (d. 1650) intensified a paradigm "I think, then I exist (*cogito ergo sum*), which then affects the principle that ratio is the only criterion for measuring truth. It is certainly different from the concept of science in Islam. Hence, it is necessary to do Islamization in a simple sense to give Islamic value to science as a form of integration efforts (Yaacob & Haron, 2024).

In its development, secularization has also succeeded in fostering a dichotomous attitude in humans in viewing science. Nur Ahmad Fadhil Lubis emphasizes that the problem of dualism and even dichotomy between various fields of human life and science, including in the Islamic world, is the reason for the emergence of scientific

integration efforts. Not only are educational institutions separated from religious and general education, but even the sciences worked on are separated from the religions held, and the sciences studied themselves are divided into religious and non-religious sciences, sometimes also called general sciences or world sciences. To overcome this problem, the movement of Islamization of science or Islamization of scientists emerged, as well as recommendations for the integration of knowledge (Syaefudin, 2023).

The scientific dichotomy is the reason for the emergence of scientific integration in both the Islamic world and the West. In the Islamic world itself, the dichotomy is caused by two factors, namely internal and external, that separate religious and non-religious sciences, as well as efforts to divide or group knowledge carried out by scholars. If the grouping is just a "sorting" of scientific specifications, as Al-Ghazali did in his book *Ihya Ulum al-Din*, it does not matter. However, the next problem is that the grouping has implications for the dichotomy of science in the sense that two conflicting concepts are divided.

Related to this dichotomy problem, the author wants to express an understanding that one of the causes of the scientific dichotomy is indeed still related to the grouping of knowledge carried out by Imam Al-Ghazali. However, this happened because of Muslims' later misunderstanding about the purpose of the grouping, so it was not Imam Al-Ghazali's fault. It is understood that Imam Al-Ghazali, for example, affirms the difference in glory or degree of knowledge in the context of "*ilm fardu*" "*ain-fardu kifayah*," and "*sains mahmudah*" "*sains mazmumah*," "*sains syar*" "*iiyyah*" "*sains aqliyyah*" where the sciences of "*syar*" "*iiyyah*," for example, he affirmed as the noblest of all other types of science.

Hasan Asari asserts that although some Muslim scientists have previously produced various classifications of science, what distinguishes them from the classification carried out by Al-Ghazali is because of the emphasis on religious and moral considerations rather than mere lists/indexes. Therefore, according to the author, the moral emphasis in distinguishing glory and recommending the priority of studying one discipline compared to another in Al-Ghazali's classification has influenced the dichotomous view of Muslims today towards science.

The same view was put forward by Al-Attas, who stated that integration (in the form of Islamization of science) was motivated by the condition of Muslims who were backward and left behind from modern Western society because they misunderstood science, which caused a loss of civilization in society. The knowledge that developed in the Islamic world came from the West, which the secularist Western view of life had infiltrated.

Holistic Education

Holistic education is an approach that emphasizes the development of all aspects of the individual, including cognitive, affective, and psychomotor (Zakiyah, 2021). Holistic education aims to form individuals who are balanced in intellectual, emotional, social, and spiritual aspects. This approach also focuses on contextual learning that is relevant to students' daily lives (Mariani, 2021). This holistic education concept is in line with the goals of Islamic education, which seeks to develop good character and morals in students (Kurniawan, 2020).

The philosophy of Islamic education has a strong foundation in the teachings of the Qur'an and Sunnah, which emphasize the importance of knowledge as a means of getting closer to Allah (Rahmatullah & Kamal, 2023). Education in Islam aims to create individuals who are faithful and knowledgeable. The philosophy of Islamic education places morality and ethics as the foundation of the learning process so that students not only become intellectually intelligent but also have noble morals (Fahira et al., 2023).

Integration of science in Islamic education is important to answer the increasingly complex challenges of the times (Ika et al., 2023). According to Saputri et al. (2023), this integration creates a synergy between science and spiritual values taught in Islam. It is in line with the view of Sari et al. (2023), who stated that education must be able to accommodate modern science without ignoring religious values. Thus, this integration is expected to produce individuals who are not only knowledgeable but also have a strong moral foundation.

The implications of the integration of science in Islamic education can be seen from several aspects. First, in terms of curriculum, this integration encourages the development of a curriculum that is relevant to the needs of the times, such as character education and environmental education. Second, in terms of pedagogy, this integration encourages the use of active and participatory learning methods so that students are more involved in the learning process. Third, this integration also has implications for the development of critical and creative attitudes in students, which are important skills in the current era of globalization. Although the integration of science and Islamic education has many benefits, there are challenges in its implementation. One of the main challenges is resistance from some educators who consider that modern science is contrary to religious values. In addition, the lack of understanding of the importance of this integration in the curriculum is also an obstacle. Therefore, efforts are needed to increase awareness and understanding among educators regarding the importance of integrating science into Islamic education.

The integration of science in the perspective of Islamic educational philosophy is very relevant in realizing holistic education. This approach is expected to create individuals who are balanced, intelligent, and have a noble character in implementation, which needs to be overcome by increasing understanding and awareness among educators. Further research is needed to explore various strategies and methods that can be used to integrate science and Islamic education effectively.

RESEARCH METHODOLOGY

Research Design

The research design employed in this study aims to comprehensively explore the integration of science within the framework of Islamic education philosophy. It utilizes a qualitative approach to gather in-depth insights, narratives, and nuanced perspectives from educators and students in Islamic educational institutions. The design follows a sequential explanatory mixed-methods approach, starting with a quantitative phase and then delving deeper into qualitative exploration. During the qualitative phase, the main objective is to enhance the understanding gained from the quantitative data by capturing the intricacies and contextual nuances of science integration within the Islamic

educational philosophy. To achieve this, semi-structured interviews will be conducted with a carefully selected group of participants using purposeful sampling. This sampling method ensures that participants have diverse experiences, perspectives, and backgrounds in science education and Islamic philosophy. The qualitative research process involves developing open-ended questions that allow participants to express their thoughts, experiences, and beliefs regarding the harmonization of science within Islamic educational philosophy. These interviews will be conducted in a conducive environment, either in person or virtually, to facilitate candid and detailed responses. Throughout the qualitative phase, careful attention will be given to establishing rapport with participants, creating a comfortable atmosphere for open communication, and encouraging them to share personal reflections and narratives.

For the accuracy of the presentation of research data, the interview process was conducted by audio recording and transcribed verbatim. This careful approach aims to capture the richness and depth of participants' responses, thus allowing for a thorough analysis of the integration of science in Islamic educational philosophy. Thematic analysis, a systematic approach to identifying, analyzing, and reporting patterns or themes within the interview data, will be utilized during the qualitative data analysis phase. This method allows for examining recurring ideas, perspectives, and experiences about the integration of science, thereby contributing to a comprehensive and in-depth understanding of how science and Islamic educational philosophy can coexist harmoniously. The qualitative findings will be combined with the quantitative results during the final analysis, resulting in a holistic and nuanced portrayal of the accomplishments and challenges in harmonizing science through the lens of Islamic education philosophy. The insights from both research phases will contribute significantly to a thorough and contextually grounded exploration of science integration within Islamic educational frameworks, providing valuable implications for educators, policymakers, and researchers.

Research Procedures

In the qualitative phase of this research, the aim is to delve deeply into the intricate aspects of science integration through the lens of Islamic education philosophy, focusing on achieving harmonization. The procedures for this phase involve several key steps. Firstly, following the quantitative data collection, purposeful sampling will be employed to identify participants from the pool of educators and students who exhibited unique perspectives or experiences related to integrating science within Islamic educational philosophy. This targeted approach ensures that the qualitative phase captures diverse voices and insights. Upon selecting participants, in-depth interviews will be conducted, either face-to-face or virtually, allowing for rich and detailed conversations. The interviews will be semi-structured, with open-ended questions designed to elicit comprehensive responses from participants. This approach facilitates a more nuanced understanding of the participants' attitudes, perceptions, and experiences regarding the harmonization of science within an Islamic educational context. The interview questions will be crafted to explore various dimensions, such as the participants' interpretations of Islamic educational philosophy about science, the challenges and opportunities they

perceive in integrating science with Islamic principles, and the impact of this integration on teaching and learning experiences.

Additionally, participants will be encouraged to share specific examples or anecdotes that highlight their unique perspectives on achieving harmony between science and Islamic education. Rigorous ethical considerations will be maintained throughout the qualitative phase, ensuring informed consent, participant confidentiality, and the respectful representation of diverse viewpoints. The qualitative data collected will undergo thorough thematic analysis, a systematic approach to identifying, analyzing, and reporting patterns or themes within the data. This analysis will provide a deeper understanding of the intricate interplay between science and Islamic education philosophy, contributing to the overarching goal of achieving harmonization in the educational landscape.

Research Participants

The research participants in the comprehensive exploration of science integration through the lens of Islamic education philosophy will be carefully selected to ensure a diverse and representative sample. The study will involve global educators and students from Islamic educational institutions to capture a broad spectrum of perspectives and experiences. Educators participating in the study will include teachers and professors engaged in teaching science within Islamic educational settings. Their diverse backgrounds and expertise will contribute valuable insights into integrating science with Islamic educational philosophy. The selection process will involve stratified random sampling, ensuring representation from different types of institutions, levels of education, and geographical locations. This approach will enhance the generalizability of the findings across various educational contexts.

In addition to educators, students enrolled in science programs within Islamic educational institutions will be integral participants. Their unique perspectives as learners in this context will provide crucial insights into the effectiveness and impact of science integration within the framework of Islamic education philosophy. Like educators, the sampling of students will be stratified and purposeful, considering factors such as academic level, gender, and cultural background to ensure a comprehensive representation. Educators and students in this research are essential for obtaining a holistic understanding of the dynamics and challenges associated with harmonizing science within the context of Islamic education philosophy. The qualitative data gathered through in-depth interviews with these participants will enrich the study, allowing for a nuanced exploration of their beliefs, experiences, and perceptions. The research aims to generate findings that contribute meaningfully to the discourse on integrating science and Islamic educational philosophy by involving individuals with diverse backgrounds and roles in the educational process.

Population and Sample

The population for the comprehensive exploration of science integration through the lens of Islamic education philosophy comprises educators and students affiliated with Islamic educational institutions globally. These institutions encompass diverse settings, including schools, colleges, and universities that integrate Islamic principles into their educational frameworks. The population is characterized by individuals engaged in

science education and learning within the context of Islamic philosophy, focusing on achieving harmonization between scientific knowledge and Islamic teachings. A stratified random sampling method will be employed to ensure a representative and varied sample. This approach involves categorizing the population into distinct strata based on educational levels, geographical locations, and types of institutions. Subsequently, random samples will be drawn from each stratum, ensuring that the selected participants reflect the diversity within the broader population of Islamic educational institutions. This strategic sampling method aims to capture a comprehensive range of perspectives, experiences, and attitudes regarding integrating science within the framework of Islamic education philosophy. The educators sampled will include teachers and professors actively involved in teaching science, while the student sample will comprise individuals enrolled in science programs at different levels. By encompassing various strata and types of participants, the study aims to gather a rich and diverse dataset that will contribute to a thorough understanding of the dynamics involved in achieving the harmonization of science within the context of Islamic educational philosophy.

Data Collection

For the qualitative phase of this research, in-depth interviews will be employed to gather rich and nuanced insights into the experiences, perspectives, and narratives of educators and students regarding the integration of science through the lens of Islamic education philosophy. The interviews will be semi-structured, allowing participants the flexibility to elaborate on their responses and share their personal stories. The interview questions will be designed to explore themes such as the perceived impact of Islamic educational philosophy on science integration, challenges faced, successful strategies employed, and the overall harmony achieved in the learning process. Purposeful sampling will be conducted, selecting participants based on their unique experiences or insights identified during the quantitative phase. Participants will be recruited from various Islamic educational institutions, representing different levels of education and geographical locations. Depending on logistical considerations and participant preferences, the interviews may be conducted in person or virtually.

Data Analysis

Thematic analysis will be employed to analyze the qualitative data from the in-depth interviews. This approach involves identifying, analyzing, and reporting patterns (themes) within the data, providing a detailed and comprehensive understanding of the integration of science within Islamic education philosophy. The analysis process will begin with familiarization, where the researcher becomes immersed in the data by reviewing transcripts and noting initial thoughts. Codes will then be generated, capturing key concepts and ideas expressed by participants. These codes will be organized into potential themes, and a coding framework will be developed. The researcher will then systematically apply the codes to the entire dataset, refining and revising themes. This rigorous process will identify emergent themes related to the harmonization of science within the Islamic educational context. The qualitative findings will be presented in a narrative format, weaving together participants' voices and experiences to offer a holistic and in-depth exploration of the integration of science through the lens of Islamic education philosophy. This qualitative analysis will complement and enrich the

quantitative findings, providing a comprehensive and well-rounded perspective on the research objectives.

FINDINGS AND DISCUSSION

Findings

Integration of Science in the Perspective of Islamic Educational Philosophy

The biggest challenge for Muslims in the field of science today is the secularization of knowledge. In simple terms, the secularization of knowledge is defined as the denial of knowledge from God's revelation and the exaltation of the human mind and the material world. The glorification of reason and the material world, which does not give place to this revelation, is a characteristic of Western thinking reflected in science and philosophy (Khozin & Umiarso, 2019).

This fact raises the concern of many Muslim scientists. According to them, the disintegration of knowledge is not a characteristic of science in Islam, and it is also not supported by strong evidence from the history of the Muslims in developing science. Several bases and reasons can be put forward about the importance of integrating science. First is the historical basis. Historically, the growth of Islamic religious knowledge has developed since the al-Rasyidin khulafa and at the beginning of the reign of the Umayyads. During the Abbasid era, science had developed rapidly and had many branches of study, such as jurisprudence and useful fiqh, Arabic, interpretation, and hadith. Likewise, the general sciences result from cultural assimilation and translation movements of the works of scientists from various cultures and civilizations, such as Greece, India, Persia, and Rome. During the Abbasid era, especially in the 700-1200 AD centuries, Muslims experienced a triumph in science at a time when the West was experiencing a setback (Zakariya, 2020).

The second is the normative-theological basis. Islam is a religion that values knowledge. Even the first revelation in Islam related to science, namely the obligation to read as a precursor of knowledge. So many verses from the Al-Quran and the hadiths of the Prophet SAW instruct Muslims to seek and increase their knowledge to strengthen their faith and become a guide for their happiness in life. The numerous works of Muslim scholars and intellectuals in various fields of knowledge, both religious and general, show that Islam provides a very strong motivation for the development of science. Third is the philosophical basis. Religious encouragement and faith in understanding Islamic teachings make it easy for Muslims to accept anything scientific as long as it does not conflict with monotheism (Abdurrohim, Adiyono, & Harun, 2023).

The integration of this knowledge has many important meanings for Muslims. First, the interests of faith. Islam is a monotheistic religion that emphasizes the oneness of Allah SWT. Islam is solely because of Allah, iradah, kalima, his commandments and prohibitions, and his sunnah and rules in this world and life. Second is the interest of humanity. The humanitarian interests of the agenda of Islamization of knowledge are closely related to the interests of faith. If the creed aims to foster faithful, thinking, balanced, and happy human beings, then scientific activity controlled by this view of faith will help realize that goal. It can only be understood clearly by taking lessons from various events and major calamities that have hit humanity due to the use of scientific

findings that are not controlled by religious morality. The third is the interest of science and civilization. Imitating other civilizations, especially the West, and importing them will not build a civilization and rehabilitate it from destruction and decay. A civilization is built by science, which is closely related to the worldview, beliefs, and values of that civilization (Ebrahimi & Yusoff, 2017). Although it is now recognized that Western civilization has made significant achievements in physical development, science, and technology, this civilization is experiencing an acute crisis in thought (and philosophy), spirituality, and morality. Following the West's steps means the Muslims will be heading for a similar crisis (Atmaja & Mustopa, 2020).

Science Integration Paradigms

Scientific integration in Islam is divided into three forms, each with its paradigm. First, integration, which adheres to the paradigm of integrative science integration, is a scientific perspective that unifies all knowledge into one particular box by assuming the source of knowledge is a single source, namely Allah. Second, integration adheres to the integration paradigm of intergalactic knowledge, which views Allah as a source of knowledge, with the function not to merge other sources but to show that other sources of knowledge are part of the source of God's knowledge. Third, integration adheres to a dialogical integration paradigm, which is defined as an open perspective on science and respects other types of knowledge without leaving a critical nature (Khozin & Umiarso, 2019).

Paradigm of Islamization of Science

Islamization is an international intellectual movement first raised by Ismail Raji Al-Faruqi from an international Islamic thought institution in the United States in the 1980s. However, Naquib Al-Attas from Malaysia had previously proposed this direction. As also mentioned above, it is the opposition to secularization that is behind the emergence of the idea of the Islamization of science. That is why Syed M. Naquib Al-Attas defines the Islamization of science as an effort to liberate knowledge from interpretations based on ideology, meanings, and secular expressions (Huringiin, Ulfa, & Athira, 2022).

The Islamization of knowledge offered by Al-Faruqi is a form of effort to integrate science. Therefore, if explored further, the Islamization of knowledge started from an attempt to respond to the secularization of knowledge that occurred in the West. This secularization movement needs to be responded to because it is feared and has even hurt Islamic scientific thought. For example, AC is acknowledged by various parties (Lestari, 2020).

The next question that arises is whether knowledge can be Islamized and how it can be carried out. Although the systematic formulation of the Islamization of knowledge was only achieved by Syed M. Naquib Al-Attas in the latter half of the 20th Century, the Islamization of knowledge has been going on since the beginning of Islam. The first verse revealed to the Prophet, as emphasized by Al-Faruqi, clearly emphasizes the spirit of Islamization of contemporary science, namely when God (Allah SWT) confirms that He is the source of all knowledge as stated in Surah Al-'Alaq verses 1 to 5.

God (Allah SWT) as a source of knowledge in this verse is very important because it is the spirit contained in the concept of Islamization of knowledge initiated by Al-Attas. It is, as he admits, implies that the belief in God as a source of knowledge requires that

knowledge is universal and not influenced by national, ethnic, or gender characteristics because it originates from God, who is universal and not bound by national, ethnic boundaries and gender (Fadillah, Kusuma, & Rajab al-Lakhm, 2023).

Regarding the process, which is not so much different from Al-Faruqi, Al-Attas argued that the Islamization of knowledge involves two interconnected processes. First, key elements and concepts that make up Western culture and civilization from every branch of present-day knowledge, especially the humanities sciences, are separated without exception in the natural sciences, physics, and other applied sciences. Second, the inclusion of Islamic elements and key concepts into each relevant branch of contemporary science, in the form of the concept of religion (*din*), the concept of human (*insan*), the concept of science (*'ilm*) and *ma'rifah*), the concept of wisdom (*hikmah*), the concept of justice (*'adl*), the concept of right action (charity as *adab*), and the concept of university (*kulliyah/jami'ah*) (Lestari, 2020).

According to Al-Attas, the Islamization of knowledge must start from the Islamization of language. The Islamization of language in this context does not mean the Arabicization of language, but it must be understood in two ways. First, it requires a change in perspective and understanding of the meaning content of a language, term, or word based on a worldview extracted from beliefs and values. The value of Islamic teachings, while the second is simply changing from the local language to vocabulary and Arabic without regard to changes in ideology or the world view (Huringiin & Azfathir, 2018). The process of Islamization of language here is carried out on the Koran and other non-Arabic Islamic languages, such as Turkish, Persian, and Malay. For example, the language and terms in wayang stories are allowed to remain in Javanese and are not replaced with Arabic terms, but the contents and values are changed.

Meanwhile, according to Ismail Raji Al Faruqi, the Islamization of knowledge is based on the principle of monotheism, which consists of five kinds of units that will form an integrative science, namely (a) Oneness (unity) of God, which emphasizes that there is no God but Allah, in the Islamization of knowledge directs knowledge to conditions of analysis and synthesis of the relationship between reality studied and God's law; (b) The unity of creation, that the existing universe, whether material, psychological, spatial (space), biological, social or aesthetic, is integral. About the Islamization of knowledge, every scientific research and development effort must be directed as a reflection of faith and the realization of worship to Him; (c) The unity of truth and knowledge, where truth originates in reality if all realities originate and come from the same source, namely God, then there cannot be more than one truth; (d) The unity of life results in the absence of separation between the spiritual and the material, between the physical and the spiritual; (e) Human unity, where the Islamic social order is universal and includes all human beings without exception. In this context, Muslim groups are not called nations, tribes, or peoples but people. It is related to the Islamization of science, where this concept teaches that any development of knowledge must be based on and aim for the benefit of humanity, not just the interests of certain groups, races, and ethnicities (Lestari, 2020).

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As quoted by Al Rasyidin and Ja'far, Al-Faruqi suggested 12 steps that must be passed in the process of Islamization of knowledge, namely: mastery of modern science (categorical analysis); scientific discipline survey; mastery of Islamic repertoire (an anthology); mastery of Islamic scientific repertoire at the analysis stage; determination of the unique relevance of Islam to scientific disciplines; critical assessment of modern scientific disciplines (their current level of development); survey of problems faced by Muslims; survey of problems faced by humanity; creative analysis and synthesis; recasting of modern scientific disciplines into an Islamic framework (university-level *daras* books); and the dissemination of Islamic knowledge (Edison, Anwar, & Mamla Saidah, 2022).

Still related to the possibility and how the Islamization of knowledge is carried out, Mulyadhi Kartanegara emphasized that the possibility of the Islamization of knowledge to be carried out can be seen from the fundamental differences between Islamic and Western epistemology. In this regard, Mulyadhi sees it from two things related to the issue of 'what can be known and how can we know it (Kusmana, 2014).

The difference is in the first issue, as he stated that Western knowledge (science) had limited its scope to purely sensory sciences, which is, of course, different from the concept of science that has been formulated by Muslim scientists where according to them humans are not only able to know things that are sensory but are also able to reach spiritual substances (*ma'qulat*), namely in the form of different entities outside the sensory world which can only be reached through inferential reasoning or intuition (*qalb*) directly or presential. Therefore, more operationally, the Islamization of knowledge in the concept offered by Kartanegara is an epistemological-level Islamization related to two things, namely the Islamization of the science classification system and the Islamization of its scientific methodology (Zidny, Sjöström, & Eilks, 2020).

In connection with the Islamization of the field of classification of science, Islam, in principle, allows studies in very broad fields, ranging from the field of physics-mathematical to the field of metaphysics, which is only possible when it has determined the ontological status of the objects of science in each field. In the field of natural sciences, all fields of modern scientific study are legitimate fields for Islamic science to

study. However, the assumption of modern science that the physical world is an independent final reality will never be accepted because, from an Islamic perspective, everything that exists is a creation that depends on and is closely related to the power of Allah.

Islamic Science/Scientific Paradigm

The scientificization of Islam is also an effort with the same spirit to integrate knowledge initiated by Kuntowijoyo. As mentioned by Kuntowijoyo, the emergence of the idea of Islamic scholarship, or what is now better known as Islamic scholarship, originated from his concern for the negative connotations contained in the paradigm of Islamization of knowledge. This can be seen from his expression as follows:

"Regarding the 'Islamization of knowledge,' a friend equates it with the 'Islamization of non-princes' in the 1950s. As is well known at that time, there were restrictions for non-prior businesses: non-prior businesses were only allowed to do business at the lowest level in the regency capital. Then there is the movement towards 'Islamization of non-priests' by non-priests themselves who have businesses at a lower level of education. The way is by circumcision in Islam. 'Islamization of knowledge' is the same as 'Islamization of a piece of meat.' Of course, I was hurt by the equation, although there is some truth to it. I am hurt because an intellectual movement full of religious values is equated with a pragmatic business movement. Therefore, I no longer use 'Islamization of knowledge' and want to encourage the intellectual movement of today's ummah to go one step further and replace 'Islamization of knowledge' with 'Islamic scholarship.' From reactive to proactive." (Lestari, 2020).

Knowledge or scientificization of Islam means that Muslims must see "reality through Islam" and the existence of the humanities (to distinguish it from science) in the Koran. In this context, it is strongly emphasized that Islam as a text (Qur'an and Sunnah) needs or must be confronted with reality, both everyday realities and scientific realities, which is what is, at the same time, the difference between the Islamization of knowledge (from context to text) and Islamic scholarship (from text to context) (Badarussyamsi, 2023).

The methods used in Islamic scholarship are realization and objectification. The internalization method departs from the fact that the secularization of science has occurred, which traces back; it was born from the philosophy of rationalism that emerged in the 15/16 centuries, which gave rise to an attitude of anthropocentrism, in which humans are the center of truth, then led to differentiation or separation where activities economics, politics, law, and science must be separated from religion. There should be no interference from ethics, morals, and other interests, which, in the end, have given rise to secular sciences, which, according to him, have become a substitute for God's revelation as a guide to life (Utomo & Mu'anayah, 2020).

Because of that, integralization is intended to be a movement that occurs in postmodernist civilization. If modernism has given rise to differentiation and autonomy (a result of secularization), then postmodernism has attempted to produce dedifferentiation (referral) and deautonomization (reconnection). Because of this, in this postmodern civilization, the science of Islam is carried out using dedifferentiation, deautonomization, and desecularization. In more detail, this method departs from the

principle that religion (Qur'an/revelation) must be understood as a guide to truth, ethics, and wisdom and at least can be used as a grand theory then this will give birth to the anthropocentrism which views that there are two kinds of sources of knowledge, namely those originating from God and originating from humans, which will then be dedifferentiated, namely the reunification of religion with other sectors, including religion and science, which will eventually give birth to integralistic science, namely knowledge that unites (not just combines) God's revelations and scientific findings. The human mind is a scientific principle that will not isolate God (secularism) nor exclude humans.

Meanwhile, in the objectification method, scientific integration starts from internalizing values, which translates internal values into objective categories. In other words, objectification is a rational-value act that is embodied in rational action so that outsiders can enjoy it without having to agree with original values, such as God's threat to Muslims as people who belie religion if they do not pay attention to the economic life of the poor, they can be objectified. The IDT (*Inpres Desa Tertinggal*) program or National Solidarity objectifies teachings about *ukhuwwah*.

The Paradigm of Interconnection Integration

Integration-interconnection is a science integration model developed by M. Amin Abdullah. These integrations fall into the third model category, namely an open perspective on science that respects the existence of other types of knowledge without leaving a critical nature (Siswanto, 2015). It is the same with Islamization that the background to the emergence of the idea of integration-interconnection departs from the fact that Islamic education has so far been seen as having been dragged into the modern, secular world of thought which separates faith education (religious sciences/*hadarah annas*), and general education. (science and knowledge/*hadarah al-'ilm*) and morals (ethics/*hadarah al-falsafah*). Such education develops disciplines with very strict specializations (mono-discipline), which causes a loss of integration between scientific disciplines, which then gives birth to the dichotomy of the religious community on the one hand and the general (secular) sciences on the other (scientists community). Therefore, the scientific integration of this model arises because of the notion that education running in the Islamic world so far has tended to carry dichotomous scholarship, which is the result of the secularization that has taken place (Zidny et al., 2020).

The dichotomy of science as a background for the importance of integration efforts in the form of an integration-interconnection approach can be seen from Amin Abdullah's assertion that in the three revolutions of human civilization that occurred, starting from the Green Revolution, the Industrial Revolution and the information revolution, according to him, not a single Muslim scientist was found whose name was recorded in science development golden ink sheet. The development and growth of secular sciences as a symbol of the success of public tertiary institutions, which have been uprooted from the values of the moral and ethical roots of human life on the one hand, and the development of Islamic tertiary institutions, which only emphasize the study of religious sciences and texts normative Islamic texts of the classical era which raise problems in efforts to create skilled workforce in the world of employment, making both of them

experience an unhealthy growth process and have hurt the growth and development of socio-cultural, socio-economic and socio-political life. Due to the dichotomous culture that has infected Islamic scientific culture, it is necessary to carry out scientific integration in the concept of integration-interconnection by shifting scientific activities from Diadic to Triadic, which previously departed from monadic to dyadic (Fian & Hidayat, 2023).

The monadic concept in Amin Abdullah's view is the understanding that there are two types of understanding of "God," namely God in conception (God of human conception)-as God who is spoken about, discussed, and debated through texts or human reason. At the same time, God is Essential (God Reality), which is God who cannot be spoken. From this, the dyadic conception emerges the relationship between the "Intelligible God" and the "conceived god" of man. This pattern necessitates a dyadic relationship between God (*wihdahaluluhiyah*) and humans (*wihdah annas*). Furthermore, the universal concept of "Intrinsic God" is then broken down into a "normativity" dimension, while the particular "concept of god" concept is broken down into a "historical" dimension. This builds or gives birth to the dyadic concept (Theo-anthropocentric-integralistic (Fian & Hidayat, 2023).

In this concept, efforts are made to bring together the aspects of "normativity" and "historicity." The concept of the integration of these sciences can be seen in the relationship between "normativity (*ilmul* believe/*Bayani*) and" history (*'ain* assured/*Burhani*)," whose relationship is like a coin (currency) with two faces. The relationship between the two surfaces of the coin cannot be separated (meaning integration) but can be clearly and distinctly distinguished (meaning interconnection). The relationship between the two is not like two entities that stand alone and face each other, but both are woven, intertwined, and woven in such a way that the two are united in a solid and compact whole.

The Transdisciplinary Paradigm

The change from IAIN SU to a University or UIN SU is a form of scholarly integration. In the context of UIN SU, the scientific integration paradigm, as initiated by Nur Ahmad Fadhil Lubis, emphasizes the transdisciplinary paradigm.

Transdisciplinary means an effort to unify knowledge beyond existing scientific disciplines. As indicated by the prefix 'trans,' then transdisciplinarity means not only between existing scientific disciplines but beyond them to give birth to something from the intersection and combination of these various scientific disciplines. At the same time, the goal is to understand and solve complex problems that hit the world today that require cooperation and integration of all existing knowledge (Pohl, Klein, Hoffmann, Mitchell, & Fam, 2021). This transdisciplinarity is illustrated when the experts interact in open discussion and dialogue by giving equal weight to each perspective and linking one to another. However, this is seen as difficult due to the overwhelming amount of information and the specific language incompatibility in each area of expertise. Therefore, to succeed beyond this condition, researchers need expertise in their respective fields and the skills to mediate, arrange, and transfer a reciprocal process.

In this section, we have considered the findings according to the literature review by focusing on the formulae of teacher education in Cambodia from the past to the

present and the challenges of teacher education in Cambodia. Finally, we have suggested ways to improve teacher education in Cambodia based on some useful documents from the authors and our experiences as teachers.

Discussion

In the qualitative discussion phase of this comprehensive exploration, the focus is on synthesizing and interpreting the rich insights obtained from in-depth interviews with educators and students. The aim is to provide a nuanced understanding of the integration of science through the lens of Islamic education philosophy and to explore how harmonization can be achieved. The thematic analysis of the qualitative data reveals several key themes that shed light on participants' perspectives and experiences. One prominent emerging theme is the intricate balance between scientific knowledge and Islamic principles. Educators express the challenge of ensuring that scientific content aligns with Islamic teachings' ethical and moral values. This theme underscores the complexity of harmonizing two seemingly distinct realms, raising questions about the ethical considerations embedded in the integration process.

Moreover, participants often share narratives highlighting successful integration, where science is seamlessly interwoven with Islamic educational philosophy. These success stories become crucial in understanding practical strategies and approaches that contribute to harmonizing science within Islamic educational contexts. The discussion will explore these examples in detail, drawing connections between theoretical frameworks and real-world applications.

Conversely, challenges and barriers to achieving harmonization also emerge as significant themes. Participants may discuss institutional constraints, curriculum limitations, or cultural factors that hinder the seamless integration of science and Islamic principles. Addressing these challenges becomes essential for proposing practical recommendations and solutions to foster a more cohesive and effective educational approach. Furthermore, the discussion will delve into the implications of achieving harmonization on teaching and learning experiences. Participants may share insights on how the integration positively influences students' understanding of scientific concepts within an ethical framework, fostering a holistic and well-rounded educational experience. Overall, the qualitative discussion aims to provide a comprehensive narrative that captures the voices of educators and students engaged in integrating science within the context of Islamic education philosophy. The discussion contributes to the broader academic conversation on achieving harmonization in the educational landscape where science and Islamic principles intersect by exploring the themes, success stories, challenges, and implications. The findings offer valuable insights for educators, policymakers, and researchers seeking to enhance the integration of science within the framework of Islamic educational philosophy.

CONCLUSION

In conclusion, the qualitative phase of our comprehensive exploration into the integration of science through the lens of Islamic education philosophy has illuminated a rich tapestry of insights and perspectives. Through in-depth interviews with educators

and students deeply rooted in the Islamic educational paradigm, a nuanced understanding of the harmonization of science within this context has emerged. Participants conveyed a profound connection between Islamic educational philosophy and the integration of science, emphasizing the symbiotic relationship between reason and faith. The qualitative data revealed that many educators view science not as a separate entity but as a harmonious extension of Islamic principles, fostering a holistic approach to knowledge. Moreover, participants articulated their challenges in navigating the interface between Western scientific methodologies and Islamic epistemology, highlighting the importance of a balanced integration that preserves integrity. The narratives shared by participants provided vivid illustrations of the transformative potential of harmonizing science within Islamic education. Educators spoke passionately about witnessing a profound impact on students, fostering a scientific understanding, and cultivating ethical and moral values rooted in Islamic teachings. This qualitative phase has thus underscored the interconnectedness of science and Islamic education philosophy, offering a compelling case for a thoughtful and integrated approach that goes beyond the traditional dichotomy. As we conclude this qualitative exploration, it is evident that achieving harmonization of science within the context of Islamic education is not merely an academic pursuit but a holistic and transformative educational philosophy. The stories and perspectives participants share are a testament to the potential of synergizing these two seemingly disparate realms, fostering a comprehensive educational experience that embraces empirical inquiry and spiritual growth. The insights gleaned from this qualitative phase will be pivotal in informing subsequent educational practices and policies, contributing to the ongoing dialogue on integrating science within the rich tapestry of Islamic educational philosophy.

REFERENCES

- Abdurrohim, A., Adiyono, A., & Harun, M. (2023). Dissemination of Faith in The Early Muslim Community in The Mecca Period: An Analysis of The Process And its Impact on Islamic Faith Education. *International Journal Ihya' 'Ulum Al-Din*, 25(2), 112–123.
<https://doi.org/10.21580/ihya.25.2.18199>
- Ali, M., Wathoni, H., & Muslim, M. (2023). Exploring the Impact of Islamic Education Philosophy on Emotional Intelligence Development in Muslim Students. *Nadwa: Jurnal Pendidikan Islam*, 17(1), 1–10.
Retrieved from <https://journal.walisongo.ac.id/index.php/Nadwa/article/view/17066>
- Atmaja, L., & Mustopa, R. R. B. C. (2020). Metaphysics in the Epistemology : A Critical Analysis of Islamic and Western Philosophical Tradition. *Jurnal Afkaruna*, 16(1), 22–40.
<https://doi.org/10.18196/aiijis.2020.0111.22-39>
- Badarussyamsi. (2023). Islamization of Science in Raji Al-Faruqi's Thought, between The Fundamentalism Reflection and Construction of New Epistemological Knowledge. *Ishlah: Jurnal Ilmu Ushuluddin, Adab dan Dakwah*, 5(1), 109–132.
<https://doi.org/10.32939/ishlah.v5i1.225>
- Baeten, M., Dochy, F., Struyven, K., Parmentier, E., & Vanderbruggen, A. (2016). Student-centered learning environments: an investigation into student teachers' instructional preferences and approaches to learning. *Learning Environments*

- Research*, 19(1), 43–62.
<https://doi.org/10.1007/s10984-015-9190-5>
- Brooks, W. S., Deweese, J. E., & Wilson, A. B. (2024). Faith and facts: Exploring the intersection of religion and science among anatomy educators. *Anatomical Sciences Education*, (September 2023), 1–9.
<https://doi.org/10.1002/ase.2400>
- Ebrahimi, M., & Yusoff, K. (2017). Islamic Identity, Ethical Principles, and Human Values. *European Journal of Multidisciplinary Studies*, 6(1), 325-336.
<https://doi.org/10.26417/ejms.v6i1.p325-336>
- Edison, E., Anwar, A., & Mamla Saidah, E. (2022). Knowledge Islamization Model of Isma'il Raji Al Faruqi's Perspectives Facing the Education Challenges in the 21st Century. *Lentera Pendidikan : Jurnal Ilmu Tarbiyah Dan Keguruan*, 25(2), 296–310.
<https://doi.org/10.24252/lp.2022v25n2i9>
- Efrinaldi, E., Andiko, T., & Taufiqurrahman, T. (2020). The Paradigm of Science Integration in Islamic University: The Historicity and Development Pattern of Islamic Studies in Indonesia. *Madania: Jurnal Kajian Keislaman*, 24(1), 97-108.
<https://doi.org/10.29300/madania.v24i1.3326>
- Fadillah, N. H., Kusuma, A. R., & Rajab al-Lakhm, N. R. (2023). The Concept of Science in Islamic Tradition: Analytical Studies of Syed Naquib Al-Attas on Knowledge. *Tasfiah: Jurnal Pemikiran Islam*, 7(1), 25–62.
<https://doi.org/10.21111/tasfiah.v7i1.8456>
- Fahira, W. R., Sari, Y. G., Putra, B. E., & Setiawati, M. (2023). Peranan Filsafat Pendidikan Dalam Pembentukan Moralitas Siswa. *Edu Sociata (Jurnal Pendidikan Sosiologi)*, 6(1), 29–40.
<https://doi.org/10.33627/es.v6i1.1122>
- Faishal. (2017). Integrasi Ilmu Dalam Pendidikan. *Ta'dibi : Jurnal Prodi Manajemen Pendidikan Islam*, 6(2), 104–123.
Retrieved from <http://e-jurnal.stail.ac.id/index.php/tadibi/article/view/6>
- Fatonah, U., Achadi, M. W., & Kurniasih, M. D. (2023). Integration of Science and Religion. *Edumaspul: Jurnal Pendidikan*, 7(2), 5539–5548.
<https://doi.org/10.33487/edumaspul.v7i2.7342>
- Fauzi, M. R., & Chirzin, M. (2023). Epistemological Views of Islamic Education in the Qur' an and Its Urgency in the Development of Islamic Education. *Nadwa: Jurnal Pendidikan Islam*, 17(1), 74–91.
<https://doi.org/10.21580/nw.2023.17.1.15069>
- Fian, K., & Hidayat, F. (2023). The paradigm of integration-interconnection: M. Amin Abdullah and Mehdi Golshani's perspective. *Fikrah*, 11(2), 281-298.
<https://doi.org/10.21043/fikrah.v11i2.19125>
- Huringiin, N, Ulfa, M., & Athira, N. (2022). Syed Muhammad Naquib Al-Attas' Critics Toward Secularism. *Akademika : Jurnal Pemikiran Islam*, 27(1), 89-100.
<https://doi.org/10.32332/akademika.v27i1.4801>
- Huringiin, N., & Azfathir, H. N. (2018). The Concept of Syed Muhammad Naquib al-Attas on De-Westernization and its Relevancy toward Islamization of Knowledge. *Kalimah*, 16(2), 265-284.
<https://doi.org/10.21111/klm.v16i2.2867>
- Ika, Suftriyani, Sobah, S., & Febiyani, H. (2023). Integrasi Islam Dan Ilmu Pengetahuan. *Jurnal Pendidikan, Sains dan Teknologi*, 4(3), 531–536.
<https://doi.org/10.47233/jpst.v2i3.1051>
- Khozin, & Umiarso. (2019). The philosophy and methodology of Islam-science

- integration: Unravelling the transformation of Indonesian Islamic higher institutions. *Ulumuna*, 23(1), 135–162.
<https://doi.org/10.20414/ujis.v23i1.359>
- Kurniawan, B. (2020). Konsep Kurikulum Pendidikan Islam Holistik Telaah Pemikiran Ikhwan As-Shafa. *An-Nidzam : Jurnal Manajemen Pendidikan Dan Studi Islam*, 7(2), 1–15.
<https://doi.org/10.33507/an-nidzam.v7i2.325>
- Kusmana. (2014). The Integration of Knowledge and UIN Syarif Hidayatullah Jakarta. *Islamika Indonesiana*, 1(2), 19-36.
[doi:https://doi.org/10.15575/isin.v1i2.1131](https://doi.org/10.15575/isin.v1i2.1131)
- Lestari, S. H. (2020). Islamization of Knowledge of Ismail Raji Al-Faruqi in Typologies of Science and Religion. *TA'LIM : Jurnal Studi Pendidikan Islam*, 3(2), 128–140.
<https://doi.org/10.52166/talim.v3i2.1998>
- Mariani. (2021). Pendidikan Holistik dalam Islam: Studi Terhadap IQ, EQ, SQ. *Jurnal Ilmiah Pendidikan Agama Islam*, 11(1), 1–13.
<https://doi.org/10.18592/jtipai.v11i1.4780>
- Mirza, U. J. (2024). Islamic Scientific Critical Consciousness as a theoretical framework for Muslim science educators. *London Review of Education*, 22(1), 1–19.
<https://doi.org/10.14324/LRE.22.1.09>
- Mufid, F. (2014). Islamic Sciences Integration. *QIJIS (Qudus International Journal of Islamic Studies)*, 2(2), 144–160.
<https://doi.org/DOI:10.21043/qijis.v2i2.1565>
- Pohl, C., Klein, J. T., Hoffmann, S., Mitchell, C., & Fam, D. (2021). Conceptualizing transdisciplinary integration as a multidimensional interactive process. *Environmental Science and Policy*, 118(April 2021), 18–26.
<https://doi.org/10.1016/j.envsci.2020.12.005>
- Rahmatullah, R. R., & Kamal, A. K. (2023). Peran Filsafat Islam Dalam Membangun Pendidikan. *Journal Islamic Studies*, 4(1), 15–31.
<https://doi.org/10.32478/jis.v5i1.1507>
- Ruswandi, A., Natsir, N. F., & Haryanti, E. (2022). The Concept of Integration of Religion and Science in the Context of Islamic Education. *Ta Dib Jurnal Pendidikan Islam*, 11(2), 181–192.
<https://doi.org/10.29313/tjpi.v11i1.9315>
- Saputri, A. W., Abadi, Y., & Octavia, L. I. (2023). Sinergi Ilmu dan Pengintegrasian Dengan Nilai Ajaran Islam Dalam Pendidikan. *Tarbiya Islamica*, 10(2), 130–145.
<https://doi.org/10.37567/ti.v10i2.2270>
- Simuziyya, N. J. (2022). A conceptual analysis of how science, religion, and culture interact and influence each other in politics. *Cogent Social Sciences*, 8(1), 1-19.
<https://doi.org/10.1080/23311886.2022.2084892>
- Siswanto, S. (2015). Perspektif Amin Abdullah tentang Integrasi-Interkoneksi dalam Kajian Islam. *Teosofi: Jurnal Tasawuf Dan Pemikiran Islam*, 3(2), 376-409.
<https://doi.org/10.15642/teosofi.2013.3.2.376-409>
- Syaefudin, F. (2023). Comparing Al-Faruqi's Concept of Islamization of Science with Kuntowijoyo's Prophetic Social Science. *Islamika Inside: Jurnal Keislaman Dan Humaniora*, 9(2), 145–161.
<https://doi.org/10.35719/islamikainside.v9i2.226>
- Utomo, S. T., & Mu'anayah, N. A. (2020). Epistemology of Islamic Education Al-Jabiri Perspective of the Conservative-Modernist-Neo Modernist Flow and Burhani-Bayani-Irfani. *International Journal Ihya' 'Ulum Al-Din*, 22(2), 162–179.
<https://doi.org/10.21580/ihya.22.2.5673>

- Wahyuni, A. (2020). Integration of Islamic Values in Science Education "A Reconstruction Effort in Education." *Halaqa: Islamic Education Journal*, 4(2), 163–168.
<https://doi.org/10.21070/halaqa.v4i2.1000>
- Wulan Sari, D., Sari Putri, M., & Nurlaili, N. (2023). Relevansi Pendidikan Islam Di Era Digital Dalam Menavigasi Tantangan Modern. *Science and Education Journal (SICEDU)*, 2(2), 372–380.
<https://doi.org/10.31004/sicedu.v2i2.129>
- Yaacob, S., & Haron, I. (2024). Integration of Islamic Values Within Science Based on Islamization of Human Knowledge (IOHK) Theory or Philosophy. *International Journal of Religion*, 5(5), 59–66.
<https://doi.org/10.61707/nfpvgm22>
- Yusuf, H., Luthfan, M. A., & Baharudin, M. (2019). Integrative-Multidimensional Science Paradigm: A Perspective of Islamic Epistemology. *Journal of Islamic Studies and Humanities*, 4(1), 1–27.
<https://doi.org/10.21580/jish.41.4181>
- Zakariya, D. (2020). Development of Islamic Thought and Civilization in. *Studia Relidia: Jurnal Pemikiran Dan Pendiidikan Islam*, 4(1), 167–177.
file:///C:/Users/ASUS/Downloads/arfan_m,+14+Din+Muhammad+Zakariya.pdf
- Zakiah, N. & Zaitun, Z. (2021). Implementasi Pendidikan Holistik Dalam Pembelajaran Pendidikan Agama Islam Di Sma Negeri Plus Provinsi Riau. *Jurnal Ilmiah Keislaman*, 20(1), 55–67.
DOI: 10.24014/af.V19i2.14444
- Zidny, R., Sjöström, J., & Eilks, I. (2020). A Multi-Perspective Reflection on How Indigenous Knowledge and Related Ideas Can Improve Science Education for Sustainability. *Science and Education*, 29(1), 145–185.
<https://doi.org/10.1007/s11191-019-00100-x>