

**THE SYNERGY OF RELIGIOUS KNOWLEDGE AND SCIENCE AN
INTEGRATION MODEL OF ISLAMIC EDUCATION IN THE PESANTREN
ENVIRONMENT**

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Abstract

This article discusses the importance of integrating religious knowledge and science in Islamic education, particularly within the pesantren environment. In the context of changing times and global demands, Islamic education is required to produce a generation that is not only religious but also academically competent. Pesantren, as traditional Islamic educational institutions, have great potential to develop an integrative curriculum model that unites spiritual values and scientific rationality. This study employs a descriptive qualitative approach using case study and phenomenological methods. Data were collected through observations, in-depth interviews, and documentation in several pesantren and madrasahs that have implemented integrative curricula. The findings show that the integration model can be applied through integrated, contextual, and interdisciplinary curriculum approaches. Despite challenges such as limited resources and cultural resistance, knowledge integration has proven effective in improving the quality of learning and shaping students' holistic character. This article recommends strengthening teacher capacity, developing reflective curricula, and policy support as strategies for sustainability.

Keywords: Islamic education; integration of science and religion; pesantren curriculum; holistic learning; teacher capacity

INTRODUCTION

The rapid development of science and technology has brought significant changes in various aspects of human life, including in the field of education. Islamic education, as a system aimed at shaping the whole person—both spiritually and intellectually—is required to respond to the dynamics of the times with relevant and transformative approaches. One approach that has recently gained attention is the integration of religious knowledge and science within the Islamic education system. This integration seeks to eliminate the dichotomy between “sacred” and “secular” knowledge and to establish a holistic scientific paradigm (Zarkasyi, 2019; Hidayat, 2020).

The integration of knowledge is not new in the Islamic tradition. Since the golden age of Islamic civilization, scholars such as Al-Farabi, Ibn Sina, and Al-Ghazali have demonstrated that religious knowledge and science can coexist in shaping a superior civilization. However, in the context of contemporary education in Indonesia, the dichotomy between religious and general knowledge remains a serious challenge. Islamic education often falls into the trap of curriculum separation, which hinders the emergence of a Muslim generation capable of holistic thinking and global contribution (Rosyada et al., 2020; Nasution, 2021).

Pesantren, as Islamic educational institutions deeply rooted in Indonesian culture and history, play a strategic role in bridging this knowledge integration. With the flexibility of their learning systems and close ties to society, pesantren hold great potential to develop educational models that unite spiritual values with scientific approaches. Many modern pesantren have begun

adopting formal curricula, introducing general subjects, and utilizing digital technology in the learning process (Musfah et al., 2020; Ma'arif, 2022). This demonstrates that pesantren are not only strongholds of tradition but also laboratories of innovation in Islamic education.

Nevertheless, the process of integration is not without challenges, such as limited human resources, cultural resistance, and the absence of a curriculum model that systematically unites these two branches of knowledge. Therefore, an in-depth study is needed on how the integration of religious and scientific knowledge can be effectively implemented within the pesantren environment.

METHODOLOGY

This study employs a descriptive qualitative approach aimed at gaining an in-depth understanding of how the integration of religious knowledge and science is implemented within Islamic educational settings, particularly in pesantren and madrasahs. This approach was chosen because it allows for the exploration of meanings, experiences, and dynamics that naturally occur in the social context of education.

In its implementation, this research combines two main approaches: case study and phenomenology. The case study approach was used to examine in detail the practices of curriculum integration in Islamic educational institutions that have adopted such a model. Meanwhile, the phenomenological approach was employed to understand the subjective experiences of educational actors—such as teachers, students, and institutional administrators—in carrying out learning processes that combine religious knowledge and science.

The research subjects consisted of pesantren and madrasahs that had demonstrably implemented integrative curricula. The selection of subjects was conducted purposively, considering the success, consistency, and diversity of approaches adopted by each institution.

Data for this study were collected through three main techniques. First, direct observation was carried out to observe the learning process, teacher-student interactions, and classroom atmospheres that reflect knowledge integration. Second, in-depth interviews were conducted with key informants such as pesantren leaders, teachers of religious and scientific subjects, and students involved in the learning process. Third, documentation was utilized to review documents such as syllabi, lesson plans (RPP), learning modules, and educational reports that illustrate integrative practices.

The data obtained were analyzed through three main stages: data reduction, data presentation, and conclusion drawing. Data reduction was conducted by filtering relevant information and categorizing it according to themes. Data presentation was carried out in the form of descriptive narratives that systematically described the findings. Conclusion drawing was done by formulating integration patterns emerging from the data and linking them to the research objectives.

To ensure the validity of the findings, the researcher employed source and method triangulation techniques, as well as conducting member checking with informants for confirmation.

RESULTS AND DISCUSSION **Definition of Knowledge Integration in the Context of Islamic Education**

Knowledge integration in Islamic education is an approach that unites religious and general sciences into a single, comprehensive, and complementary learning system. Its main objective is to eliminate the dichotomy between “sacred” and “secular” knowledge, which has long been

a challenge in modern Islamic education. Within the integrative paradigm, all knowledge is viewed as part of humanity's effort to understand God's creation and fulfill the role of khalifah (vicegerent) on earth (Nasution, 2021; Rosyada, 2020). Islamic education based on integration places knowledge as a means to draw closer to God, not merely as a tool to meet worldly needs.

Islamic Perspective on Knowledge: Revelation and Reason as Sources of Knowledge

Islam views the sources of knowledge as derived from two main pillars: revelation and reason. Revelation, as contained in the Qur'an and Sunnah, provides the foundation of values, ethics, and the purpose of seeking knowledge. Reason, as a divine gift, functions as a tool to understand reality, develop technology, and solve life's problems. The Qur'an encourages Muslims to think, reflect, and explore the universe as signs of God's greatness (QS. AlBaqarah: 164; QS. Al-Mulk: 15). Therefore, scientific knowledge obtained through reason is not in conflict with revelation; rather, it must be guided by the values of revelation so that it becomes beneficial and spiritually meaningful (Hidayat, 2020; Ma'arif, 2022).

The Concept of Tawhid as the Foundation of Integrating Religious and Scientific Knowledge

Tawhid, as the core teaching of Islam, serves as the primary foundation for knowledge integration. From the perspective of tawhid, all knowledge originates from Allah and aims to strengthen faith as well as improve human life. Tawhid guides humans to view knowledge as a unified whole, inseparable between the "religious" and the "rational." By placing tawhid as the foundation, Islamic education can construct a paradigm of knowledge that unites spiritual values with scientific approaches. This enables the emergence of Muslim generations who not only master knowledge but also possess ethical awareness and social responsibility (Zarkasyi, 2019; Huda & Fadillah, 2023).

CONCLUSION

The integration of religious knowledge and science in Islamic education is a strategic step to shape a Muslim generation that not only possesses spiritual depth but also intellectual competence relevant to the demands of the times. Islamic education, which has so far tended to be fragmented between revealed knowledge and rational knowledge, needs to be reconstructed through an approach that unites both into a single, holistic, and meaningful learning system.

Pesantren, as Islamic educational institutions deeply rooted in the traditions and culture of the Indonesian nation, hold great potential to become pioneers of knowledge integration. With flexible curricula, strong ties to the community, and a growing spirit of renewal, pesantren can develop educational models that combine Islamic values with scientific approaches in a contextual and applicative manner.

From this study, it can be concluded that the integration of religious and scientific knowledge is not only possible but also urgent to be implemented systematically in pesantren and madrasahs. Models such as integrated curricula, contextual approaches, and interdisciplinary methods have proven capable of bridging the two domains of knowledge that have long been separated. However, the success of this integration greatly depends on the readiness of human resources, institutional support, and the courage to innovate.

As a recommendation, pesantren and madrasahs need to strengthen teacher capacity through integration-based pedagogical training, design curricula that are not only formal but also reflective of Islamic values and the development of science, and establish partnerships with universities and research institutions to enrich learning approaches. The government and

policymakers are also expected to provide regulatory and facilitative support so that this integration model can develop sustainably.

With strong synergy between religious knowledge and science, Islamic education will be able to produce a generation that is not only academically intelligent but also spiritually wise—ready to face global challenges with firm faith and broad scientific understanding.

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