



A PLURIDISCIPLINARY APPROACH TO SCIENTIFIC INTEGRATION AND ITS APPLICATION TO CONTEMPORARY ISLAMIC EDUCATION

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Abstract :

The development of science and technology has brought significant impacts on Islamic education. One of these impacts is the challenge to reshape scientific paradigms to become more open, integrated, and interdisciplinary. This article aims to examine the essence and contribution of the pluridisciplinary approach within the process of knowledge integration and its application in Islamic education. The study employs a library research method by reviewing a range of relevant academic sources, including books, scholarly articles, conference proceedings, and institutional documents. The analysis was conducted through systematic stages, encompassing source collection, literature classification, content examination, and the formulation of a conceptual synthesis. The findings indicate that the pluridisciplinary approach plays an essential role in dismantling the divide between religious and general sciences. Through this approach, various disciplines – such as theology, sociology, psychology, and educational management – can interact on an equal footing to construct a comprehensive understanding of the realities of Islamic education. Its implementation can be observed in integrative curriculum development, collaborative cross-disciplinary learning, multidisciplinary research, and educational management that is responsive to globalization and digital technology advancement. The article concludes that the pluridisciplinary approach is not merely an analytical method but also serves as a philosophical foundation for developing an Islamic education system that combines spiritual, intellectual, and social values. This approach reaffirms the principle of the unity of knowledge in Islam, which holds that all knowledge originates from God and must be utilized for the benefit of humanity. Consequently, Islamic education can progress toward a holistic, humanistic system aligned with the demands of contemporary times.

Keywords: Pluridisciplinary Approach; Knowledge Integration; Islamic Education; Unity of Knowledge; Interdisciplinary Collaboration

INTRODUCTION

Science and technology have undergone highly intensive development alongside the rise of globalization, which has brought significant impacts on all aspects of human life (Wan Zakaria, 2019), including Islamic educational institutions. This indicates that there is a reciprocal relationship between social reality and the world of education. Digital transformation, cultural globalization, and the rapid flow of information demand that Islamic educational institutions adapt to a more open, integrative, and cross-disciplinary collaborative scientific paradigm (Mujamil Qomar, 2020). A paradigm shift implies changes in both theoretical and practical structures. These changes carry substantive implications



that include learning methods and the epistemological structure of knowledge, which has long been divided between religious sciences and general sciences (Maksudin et al., 2018). The entrenched dichotomy of knowledge within the Islamic education system has created a gap between spiritual values and mastery of modern scientific knowledge. As a result, educational processes often lose balance between ethical, moral, and scientific rational dimensions (Sukardi, 2016). Therefore, a new approach is needed to bridge the boundaries of knowledge so that Islamic education can adequately respond to the complexity of contemporary challenges without losing its foundational values of tawhid and universal humanity (Mawardi, 2018). In this context, the pluridisciplinary approach emerges as a significant alternative paradigm. This approach emphasizes collaboration among multiple disciplines on an equal footing to examine an object of study from various perspectives without eliminating the methodological characteristics of each discipline (Vaideanu, 1983). Through this approach, Islamic education can integrate theological perspectives with sociological, psychological, and pedagogical analyses, thereby producing a more comprehensive understanding of educational and social realities (Flogie & Aberšek, 2015).

The pluridisciplinary approach is increasingly important amid 21st-century demands that emphasize critical, collaborative, communicative, and creative thinking skills (Puente-Diaz & Cavazos-Arroyo, 2021). Contemporary Islamic education is no longer sufficient by merely imparting normative teachings; it must also cultivate creative and solution-oriented thinking, as well as digital literacy, so that learners can actively participate in global society (Moreira de Oliveira et al., 2018). Through the integration of Islamic sciences with contemporary disciplines, Islamic education can shape learners who are not only religious but also adaptive and innovative scholars (King, 2018). Additionally, the pluridisciplinary approach holds significant potential in curriculum development, scientific research, and Islamic education management. In curriculum design, integrating science, technology, social-humanities, and Islamic values can produce holistic learning models. For instance, environmental ethics can be taught not only from a fiqh perspective but also analyzed through ecological and public policy approaches (Rosenfield, 1992). In research, the pluridisciplinary approach encourages the involvement of various fields of study, resulting in policy innovations and learning models that are contextual to the needs of modern society (Moreira de Oliveira et al., 2018).

Furthermore, this approach plays a strategic role in developing an ecosystem of knowledge within Islamic educational institutions. By integrating revealed knowledge with empirical findings, the pluridisciplinary approach not only strengthens the epistemological foundation of Islam but also opens spaces for dialogue between religion, science, and culture (M. Amin Abdullah, 2018). Ultimately, this process will produce an Islamic educational paradigm that balances spirituality, intellectuality, and sociality. Based on these foundations, this paper seeks to examine the nature and role of the pluridisciplinary approach in scientific integration and its application to contemporary Islamic education.

This discussion is expected to provide conceptual contributions to strengthening the integrative paradigm of Islamic knowledge and to serve as practical inspiration for curriculum development, learning, and research within Islamic educational institutions in the modern era.

RESEARCH METHOD

This study employs a library research method as the primary basis for data collection and analysis. This method focuses on examining relevant scholarly sources to understand the concepts, theories, and expert perspectives concerning the pluridisciplinary approach in scientific integration and its application to contemporary Islamic education. In library research, data are obtained from various references such as academic books, scientific journal articles, seminar papers, conference proceedings, and official documents from educational institutions related to the research theme (Zed, 2014).

The research process was carried out through several systematic stages. First, a literature inventory was conducted by identifying and selecting reading materials that are directly related to the concepts of pluridisciplinarity, scientific integration, and the development of Islamic education. Second, source classification was performed by grouping the literature based on major topics, such as theories of scientific integration, the pluridisciplinary approach, and its application in contemporary Islamic education (Sugiyono, 2019). The third stage involved content analysis, a process of examining textual content in depth and systematically to uncover ideas, values, and conceptual relationships among scholars' thoughts (Krippendorff, 2013).

Through this analysis, the researcher critically interprets various viewpoints that contribute to constructing an integrative theoretical framework within the context of Islamic education. The fourth stage was literature synthesis, which entails combining findings from various sources into a comprehensive, coherent, and relevant conceptual understanding aligned with the research objectives (Zed, 2014). The validity of the data was tested by comparing multiple credible and up-to-date sources to obtain interpretative validity. Through this library research approach, the study is expected to strengthen conceptual understanding regarding the importance of the pluridisciplinary approach as an integrative strategy for developing an Islamic education system that remains relevant to advancements in science and the challenges of the contemporary global era.

FINDINGS AND DISCUSSION

The Concept of a Pluridisciplinary Approach in Scientific Integration

Etymologically, the term *pluridisciplinary* derives from the combination of two words: *pluri* and *disciplinary*. The word *pluri* originates from the Latin *plures*, meaning "many" or "diverse," while the English word *discipline* refers to a field of knowledge, an area of study, or an academic order (Vaideanu, 1983). Thus, the term *pluridisciplinary* denotes an approach that involves multiple disciplines working side by side within a scientific inquiry or scholarly activity.

Terminologically, the pluridisciplinary approach refers to a scientific model in which various disciplines collaborate on an equal footing to examine a phenomenon without eliminating the epistemological boundaries of each field (Flogie & Aberšek, 2015). Each discipline maintains its own identity, methodology, and terminology while contributing collectively to broaden the understanding of the object of study. This approach is not intended to merge disciplinary boundaries into a new synthetic whole; rather, it creates a dialogical space and parallel cooperation among fields to enrich perspectives and research outcomes (Setya Yuwana Yudikan, 2018).

Essentially, the pluridisciplinary approach is a paradigm that emphasizes collaboration among multiple disciplines in viewing and analyzing a phenomenon in a parallel and complementary manner. In this approach, each discipline does not dissolve into a single analytical framework but contributes from its own vantage point and methodology to deepen understanding of the same object of study (Flogie & Aberšek, 2015). Thus, the pluridisciplinary approach encourages scientific collaboration without negating the epistemological characteristics of the fields involved. Within the context of scientific integration, this approach is considered a fundamental stage leading to higher forms of integration—namely, interdisciplinary and transdisciplinary approaches. It opens conceptual dialogue between Islamic sciences and modern sciences which often develop in isolation from one another (Agus Zaenul Fitri et al., 2020). In Islamic Higher Education Institutions (PTKI), this approach becomes an important strategy in developing an integrative-interconnective paradigm that unites revealed knowledge (*naqliyah*) with rational-empirical findings (*'aqliyah*). Through such an approach, scientific integration is not merely the merging of study areas, but the formation of interconnected and mutually enriching scientific thinking (Abdullah, 2006).

The application of a pluridisciplinary approach creates productive synergy among disciplines, such as Islamic education, psychology, and sociology in examining learning dynamics and students' moral development. Each discipline offers a unique contribution—psychology explains behavioral aspects, sociology focuses on social interactions, and Islamic education emphasizes values and spirituality—collectively forming a comprehensive and contextual understanding (Naim, 2016). This approach makes Islamic education more responsive to complex human and social challenges, rather than centering solely on theological aspects. Philosophically, the pluridisciplinary approach aligns with the Islamic concept of knowledge integration, which rejects the dichotomy between religious sciences and worldly sciences. Such separation contradicts the principle of *tawhid*, which affirms the unity of all knowledge derived from both revelation and human empirical experience (Fauzi, 2017). As emphasized by Amin Abdullah, knowledge integration requires an equal epistemological dialogue between modern science and Islamic studies so both can interact constructively to build a comprehensive knowledge structure. In this framework, the pluridisciplinary approach functions as an epistemic bridge that enables collaboration among disciplines without undermining their scientific autonomy

(Vaideanu, 1983).

According to Uwes Chaeruman, the pluridisciplinary approach must be distinguished from the transdisciplinary approach, which emphasizes the fusion and synthesis of disciplines into a new paradigm. The pluridisciplinary approach emphasizes parallel cooperation in which each field contributes within its own boundaries but remains connected by the same issue or problem (Chaeruman, 2010). This pattern of collaboration provides cross-disciplinary understanding that broadens academic horizons and enriches methodological and conceptual approaches, especially in Islamic education development (Setya Yuwana Yudikan, 2018). Thus, the essence of the pluridisciplinary approach in scientific integration lies in the systematic process of connecting diverse scientific perspectives synergistically and on equal footing to create a comprehensive understanding of Islamic and human realities. The approach underscores the importance of epistemological openness and scholarly cooperation in developing an Islamic educational paradigm that is contextual, adaptive, and reflective of social dynamics and modern scientific advancements (Agus Zaenul Fitri, 2020; Amin Abdullah, 2018).

The Role of the Pluridisciplinary Approach in the Integration of Islamic Educational Sciences

Islamic educational sciences in the modern era, where social, cultural, and technological realities require an open, comprehensive, and cross-disciplinary mindset. The challenges posed by the globalization of knowledge and contemporary human dynamics cannot be addressed by a single discipline. Therefore, the pluridisciplinary approach enables epistemological collaboration among disciplines such as theology, sociology, psychology, and educational management to enrich analysis and solutions related to issues in Islamic education (Fauzi, 2017; Agus Zaenul Fitri, 2020).

1. Kontribusi Contributions of Multiple Disciplines to the Development of Islamic Education

The pluridisciplinary approach opens opportunities for synergy across scientific fields to deepen understanding of educational phenomena:

- a. Sociology of education plays a role in understanding social dynamics, societal structures, and cultural factors that influence learning behavior and Islamic educational policies (Tabrani, 2014).
- b. Educational psychology contributes analyses of personality, motivation, and student development—crucial for designing effective learning strategies that align with human nature (Naim, 2016).
- c. Educational management provides perspectives on institutional governance, ensuring that educational processes run effectively through systematic planning, supervision, and evaluation (Mawardi, 2018).

Thus, the pluridisciplinary approach not only brings disciplines together but also builds functional collaboration to develop an Islamic education system balanced between spiritual, rational, and social values.

2. Synergy between Islamic Sciences and Modern Sciences

Islamic education today faces substantial challenges amid rapid modernization and technological development. Through a pluridisciplinary approach, constructive synergy occurs between Islamic sciences and modern sciences, allowing educational problems to be examined from multiple dimensions. This integration does not blur disciplinary boundaries; instead, it fosters epistemological dialogue that brings together revealed values and modern empirical findings (Amin Abdullah, 2014).

For example, theological approaches can explain moral education values, while modern psychology theories illuminate how these values are internalized within learners (Agus Zaenul Fitri et al., 2020). Similarly, educational management and educational technology contribute to developing efficient, digital, and 21st-century-oriented learning systems (Mujamil Qomar, 2020). This synergy reflects Islam's view of the unity of knowledge, where revelation and reason support each other in understanding reality. With a pluridisciplinary approach, Islamic education can appear relevant, scientific, and grounded in *tawhidic* values (Uwes Chaeruman, 2010).

3. A Holistic and Adaptive Islamic Education Paradigm

The primary role of the pluridisciplinary approach is its ability to establish a holistic Islamic educational paradigm—one that integrates revelation, rationality, and empirical experience in a balanced manner. Islamic education that is oriented toward only one aspect—whether spiritual or rational—risks losing balance in shaping whole human beings (Fauzi, 2017).

Through a pluridisciplinary approach, Islamic education today can adapt to global dynamics while remaining rooted in essential Islamic values. This paradigm emphasizes that Islamic education aims not only to produce religious individuals but also scholars and professionals with social, moral, and intellectual awareness (Agus Zaenul Fitri, 2020). Thus, the pluridisciplinary approach becomes a strategic foundation for developing Islamic education that is open to change, integrating diverse scientific fields while preserving core values and spirituality (Amin Abdullah, 2014).

Application of the Pluridisciplinary Approach in the Integration of Islamic Educational Sciences

The pluridisciplinary approach plays an important role in renewing the paradigm of contemporary Islamic education, especially in addressing the complexities of the modern world that demand cross-disciplinary thinking and adaptability to social and technological change. Through this approach, Islamic education does not only focus on religious sciences but also opens space for active dialogue between religion, science, technology, and the humanities (Abdullah, 2014).

1. Implementation in the Islamic Education Curriculum

The integration of the pluridisciplinary approach into the curriculum aims to

create harmony among the spiritual, intellectual, and social dimensions of learners. Curricula designed with pluridisciplinary principles connect religious subjects with science, technology, and social sciences, enabling students to understand Islamic teachings contextually and scientifically (Fitri, 2020). For instance, in some modern madrasas and pesantren, *fiqh* is linked with bioethical studies, or *akhlak* is integrated with developmental psychology and moral sociology. In Islamic higher education institutions (PTKI), integration occurs through cross-departmental courses such as Islam and Modern Science, Islamic Digital Ethics, and Islamic Values-Based Educational Management (Mujamil Qomar, 2020). Such an approach expands students' scientific horizons and builds the epistemological awareness that religious and worldly sciences complement each other in addressing contemporary human problems (Nata, 2018).

2. Collaborative Knowledge-Based Learning Approache

The pluridisciplinary approach in learning emphasizes collaboration across fields through learning designs that combine theory, practice, and religious reflection. This collaborative model encourages cross-disciplinary interaction in classrooms, such as project-based work involving students from Islamic education, psychology, and educational technology programs to solve real-world problems (Chaeruman, 2010). In this context, teachers and lecturers shift from being mere instructors to facilitators of knowledge integration. They serve as bridges linking diverse disciplines to explain socio-religious phenomena more comprehensively. Collaborative learning also fosters critical, analytical, and reflective thinking among learners regarding contemporary Islamic education issues (Mawardi (Mawardi, 2018). Thus, this approach cultivates an open and dialogical academic culture where Islamic values interact dynamically with modern scientific insights (Abdullah, 2018).

3. Cross-Disciplinary Research in Islamic Education

Research represents one of the most concrete forms of pluridisciplinary application in Islamic education. Studies incorporating multiple disciplinary perspectives broaden analytical scope and enrich findings, making them more relevant to contemporary social, cultural, and technological contexts (Moreira de Oliveira et al., 2018). For example, research on students' religious behavior may employ theological approaches to understand value foundations, psychological approaches to analyze personality and motivation, and sociological approaches to explore environmental influences on Islamic character formation (Naim, 2018). Such approaches yield more comprehensive insights into Islamic education dynamics. Moreover, pluridisciplinary research contributes to policy innovation, such as developing integrative curriculum models, character-based assessment, and spiritually oriented educational digitalization (Fauzi, 2017).

4. Institutional Development and Islamic Education Management

Beyond curriculum and learning, the pluridisciplinary approach also applies to managing Islamic educational institutions. Modern Islamic educational

management requires leaders to understand management principles, organizational psychology, educational economics, and Islamic spirituality (Fitri, 2020). For example, improving the quality of madrasas must be examined not only from an administrative standpoint but also through motivational psychology, educational resource economics, and Islamic leadership ethics. This strengthens the paradigm that Islamic educational management must be rooted in *tauhidic* values while being grounded in scientific and professional principles (Abdullah, 2018).

5. Community Empowerment and Educational Da'wah

The pluridisciplinary approach is also applied in community empowerment activities rooted in Islamic education. Educational institutions are now not only centers of knowledge transmission but also agents of social transformation. Through the synergy of da'wah studies, sociology, communication, and Islamic economics, Islamic education can contribute to building social awareness, Islamic financial literacy, and family resilience (Nata, 2018). For instance, student community service programs often combine religious analyses with socio-economic research, resulting in outcomes that enhance both spiritual development and economic self-sufficiency based on Islamic values (Mujamil Qomar, 2020).

CONCLUSION

The pluridisciplinary approach in the integration of knowledge occupies an important position in building a new paradigm of Islamic education that is aligned with the demands of the modern era. Through this approach, Islamic education transforms from a perspective that separates religious sciences and general sciences into one that unifies spiritual, rational, and empirical dimensions in an integrated framework. This approach opens space for various disciplines – such as theology, psychology, sociology, educational management, and technology – to collaborate on an equal footing in analyzing and solving educational issues more comprehensively and contextually.

The synergy among these disciplines enables Islamic education to present relevant solutions to global challenges, such as moral crises, digital disruption, and the need for 21st-century competencies. By integrating Islamic knowledge with modern scientific fields, the pluridisciplinary approach not only strengthens the conceptual foundation of Islamic education but also provides practical direction in curriculum development, instructional innovation, multidisciplinary research, and institutional management based on Islamic values. In the context of Islamic higher education institutions, this approach serves as an epistemological bridge linking revealed knowledge (*naqliyah*) with rational-empirical knowledge (*'aqliyah*), thereby cultivating a generation of Muslim scholars who are critical, religious, and creative in responding to contemporary challenges.

Philosophically, the pluridisciplinary approach reinforces the concept of the unity of knowledge in Islam, which asserts that all forms of knowledge originate from God and must be utilized for the benefit of humanity. Thus, this

approach is not merely technical or methodological, but also functions as an ideological foundation for transforming Islamic education into a system that is more integrative, humanistic, and responsive to social change and the development of global scientific knowledge.

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