Islamic Education and Environmetal Awareness : Trends and Knowledge Structure (2000 - 2025)

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Abstract: In the past decade, research in Islamic education and human ethics has seen a significant acceleration, marked by increased publications, global collaboration, and strong interdisciplinary integration, especially after the pandemic. This research focuses on developing a framework that integrates Islamic spirituality, social justice, and technological innovations in education. The study employs a bibliometric analysis to map trends, influential authors, and key themes in the integration of Islamic education with environmental awareness. Findings show an epistemological shift toward Transformative Islamic Humanism, a new paradigm that connects Islamic values with contemporary social issues, such as sustainability and justice. This shift is supported by the dominance of Social Sciences and Arts and Humanities in the research, reflecting the growing humanistic orientation in Islamic education. Geographically, Southeast Asia, particularly Indonesia and Malaysia, emerges as a new research hub. The study identifies future research directions, including developing digital ethics in Islamic education, integrating halal values with sustainability, and fostering community empowerment through Islamic boarding schools (pesantren). This research contributes to bridging Islamic education with environmental sustainability goals and offers new avenues for international collaboration. Practically, it supports the development of eco-Islamic curricula and policies that align with the global Sustainable Development Goals (SDGs).

Keyword: Islamic Education, Transformative Islamic Humanism, Environmental Awareness, Bibliometric Analysis, Sustainable Development.

INTRODUCTION
1. Background

In the last two decades, Islamic education and environmental awareness have become two strategic areas that have increasingly gained attention in the context of global sustainable development. Climate change, rapid urbanization, and environmental degradation demand a transformation in education to instill spiritual values, social ethics, and ecological responsibility. Islamic education has a strong foundation in the concepts of tawhid (divine

unity), khalifah (human responsibility for the Earth), and mizan (balance), which are relevant to contemporary ecological challenges.(Amrullah et al., 2025)

In line with this, trends in research publications related to Islamic education have shown a significant increase from 2017 to 2025, in line with the global focus on Sustainable Development Goals (SDGs). For example, Elihami and Pajarianto (2025) found that the integration of Islamic values into educational curricula directly contributes to achieving SDG 4 and SDG 13, particularly through sustainability-based education. Furthermore, this internalization of Islamic values has a positive impact on the pro-environmental behavior of the Muslim youth generation, especially in terms of self-regulation and social influence.(Albasheer et al., 2015)

This issue is important both theoretically and practically because it bridges two main national development focuses: enhancing human resources based on science, technology, and faith, as well as strengthening environmental awareness through value-based education. In the Indonesian context, the integration of Islamic education and environmental awareness aligns with the National Master Research Plan (RIRN) in sustainable development and supports Asta Cita No. 8, which emphasizes strengthening harmonious life with nature, culture, and interfaith tolerance.(Arisona et al., 2025)

Empirical studies have also shown that religion-based education approaches are effective in shaping environmentally friendly behavior. (Arisona et al., 2025)stated that disaster mitigation models based on community education in urban areas increased ecological awareness by 65% among training participants. Meanwhile, Hasyim et al. (2025) emphasized that the combination of Islamic values, social influence, and self-control has a positive correlation with the ecological behavior of the Muslim community. Thus, Islamic education plays a strategic role as a bridge between spiritual development and environmental sustainability.

Recent studies reveal a new direction in Islamic education, focused on achieving SDGs and forming environmentally friendly behavior. Research in the field of Islamic education is now focusing on conceptual literature that links Sharia principles with sustainable development. Systematic literature approaches indicate an increase in publications on green Islamic education, particularly in Southeast Asia and the Middle East.(Heidel et al., 2025)

Furthermore, quantitative research shows a significant relationship between Islamic values and sustainable behavior (r = 0.68), suggesting that spiritual factors can serve as a foundation for environmental education policy. On the other hand, there are developments in disaster mitigation models based on Islamic education that strengthen collaboration between educational institutions, local communities, and local governments. These studies confirm that Islamic education is not only a system of values but also a practical tool for building inclusive ecological social awareness.(Mashuri et al., 2024)

While some studies have explored the relationship between Islamic education and environmental awareness, no research has comprehensively mapped trends, actors, and knowledge structures in this field longitudinally (2000–2025). Previous studies were still thematic in nature and did not provide a quantitative analysis of publication patterns, scientific collaboration, or the interconnections between research topics. Additionally, there has been no comprehensive review of the contributions of Muslim-majority countries in shaping the global academic discourse on Islamic education and the environment. Therefore, this study seeks to fill this gap through a bibliometric approach to analyze publication trends, key figures, journals, and dominant topics systematically.(Waluyo & Anita, 2024)

The main issue in this research lies in the lack of a comprehensive mapping of trends and knowledge structures in the field of Islamic Education and Environmental Awareness. This has resulted in limited understanding of the evolution of concepts, institutional contributions, and cross-country collaboration networks over the past two decades. As a result, it is difficult to

formulate effective Islamic education strategies to address global environmental sustainability issues. If this gap is not addressed, Islamic education risks losing its relevance in addressing contemporary ecological challenges and contributing to the achievement of SDGs.(Semakula & Samsuri, 2017)

This research aims to provide a comprehensive overview of the development and knowledge structure in the field of Islamic Education and Environmental Awareness from 2000 to 2025. The objectives of this study include analyzing trends in scientific publications, focusing on the annual volume of publications, the fields of study involved, the contributions of different countries, and patterns of international collaboration. The study also seeks to identify the most influential authors, journals, and articles based on citation metrics and their contributions to the advancement of this field. Additionally, the research aims to map the primary topics studied and the interconnections between various research themes. Finally, the study will determine the direction and future research opportunities that can strengthen the integration of Islamic education and environmental awareness, supporting sustainable development in the coming years.This study contributes to expanding the literature on Islamic education by introducing a bibliometric approach to map cross-disciplinary research trends. The findings are expected to enrich the theory of eco-theological education from an Islamic perspective and open new avenues for international research collaboration between religious studies and environmental studies.(Sumarmi et al., 2025)

Practically, this research can serve as a basis for policymakers and Islamic educational institutions to develop green curricula aligned with spiritual values and sustainable development goals. This mapping also supports the strengthening of Eco-Pesantren, green Islamic universities, and community-based education initiatives focused on ecological responsibility, in line with Asta Cita No. 8, which emphasizes harmony between humans and nature.(Anshori & Pohl, 2022).

METHOD

This study employs a Systematic Literature Review (SLR) approach, referring to the PRISMA 2020 guidelines to identify, evaluate, and synthesize scientific literature related to Islamic education and environmental awareness between the years 2000 and 2025. The PRISMA approach allows researchers to systematically and transparently filter publications while minimizing bias in the selection of studies. The main objective of this method is to understand the structure of knowledge and trends in the study of Islamic education related to environmental awareness. This focus is crucial given the increasing urgency of environmental issues and the need for value-based approaches, including Islamic values, in the development of ecological awareness.(Hasyim et al., 2025)

The data collection process was conducted by searching literature through two internationally indexed databases, namely Scopus and Web of Science (WoS). The search strategy was formulated using a combination of Boolean keywords as follows: (TITLE-ABS-KEY("Islamic Education") OR TITLE-ABS-KEY("Environmental")) AND TITLE-ABS-KEY("Awareness") AND PUBYEAR > 2014 AND PUBYEAR < 2026 AND (LIMIT-TO (SUBJAREA, "SOCI")). Additional filters were applied to include only articles published in the field of social sciences and written in English. This process resulted in relevant articles from 2015 to 2025. The search strategy was designed to ensure that the results accurately reflect the dynamics and shifts in academic discourse related to this topic.(Bruckmayr, 2020)

All the publications found were then filtered using the four main PRISMA stages: (1) identification of initial literature, (2) screening based on inclusion and exclusion criteria, (3) selection of publications meeting academic eligibility (peer-reviewed), and (4) final inclusion of relevant publications for analysis. Inclusion criteria included articles that explicitly discuss the relationship between Islamic education and environmental awareness, using qualitative,

quantitative, or mixed approaches. In contrast, articles that only generally addressed these topics without in-depth analysis were excluded from the analysis. The PRISMA flow diagram was used to document the article screening process transparently.(Hyoscyamina, 2017)

After the selection process, the chosen articles were analyzed using bibliometric and thematic content analysis. Bibliometric analysis was conducted to identify publication trends, key keywords, collaboration between institutions and countries, and the most productive authors in this field. Meanwhile, thematic analysis was used to explore the structure of knowledge, key findings, and methodological approaches in these studies. Software such as VOSviewer and Biblioshiny (R) was employed to visualize keyword networks and the structure of relevant literature. This approach allows for a comprehensive mapping of the academic landscape related to Islamic education and environmental awareness.(Puspitarini et al., 2023)

This research contributes to understanding how Islamic values are integrated into environmental education and how this contributes to the formation of ecological awareness in society. Thus, the results of this study are expected to serve as a foundation for the development of Islam-based curricula that are responsive to global environmental issues.

In addition, this research also identifies gaps and future directions in research in this field, providing references for academics and practitioners in the development of religious-based environmental education.(Damaianti, 2017)

RESULT AND DISCUSSION
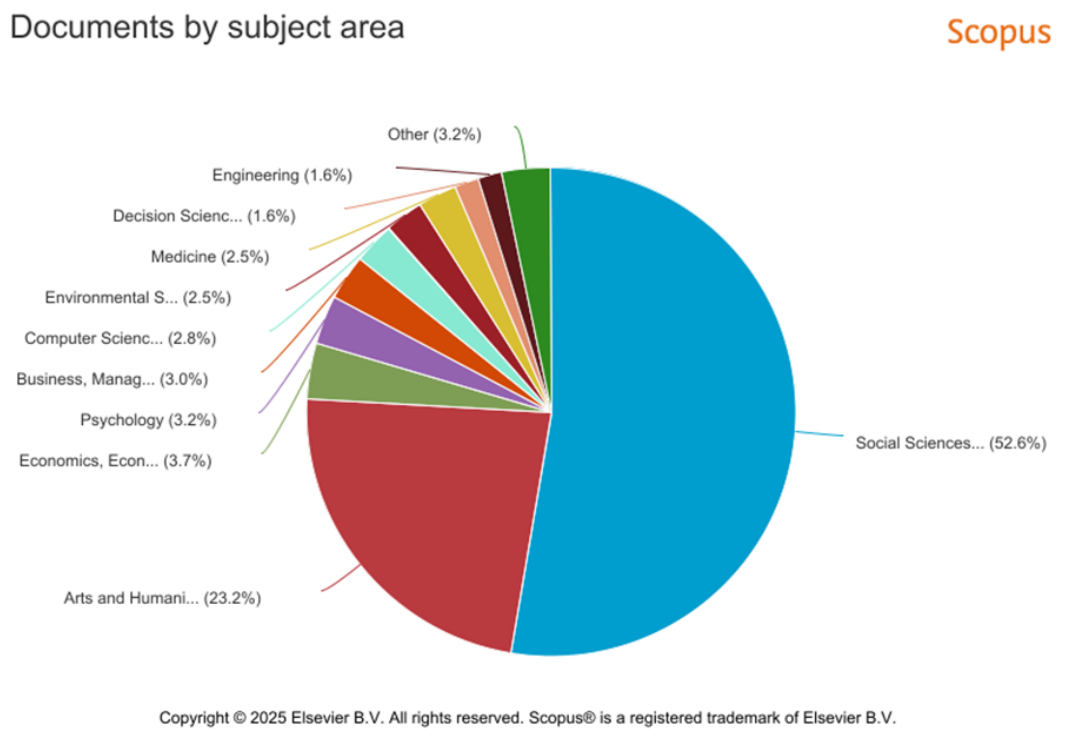### 1. Publication Trends and International Collaboration Patterns

This analysis aims to describe the development of research related to the integration of Islamic education and environmental awareness over time. By observing annual publication trends and patterns of international collaboration, the dynamics of growing research interest and the level of global scientific engagement can be identified.(Firdaus et al., 2025)
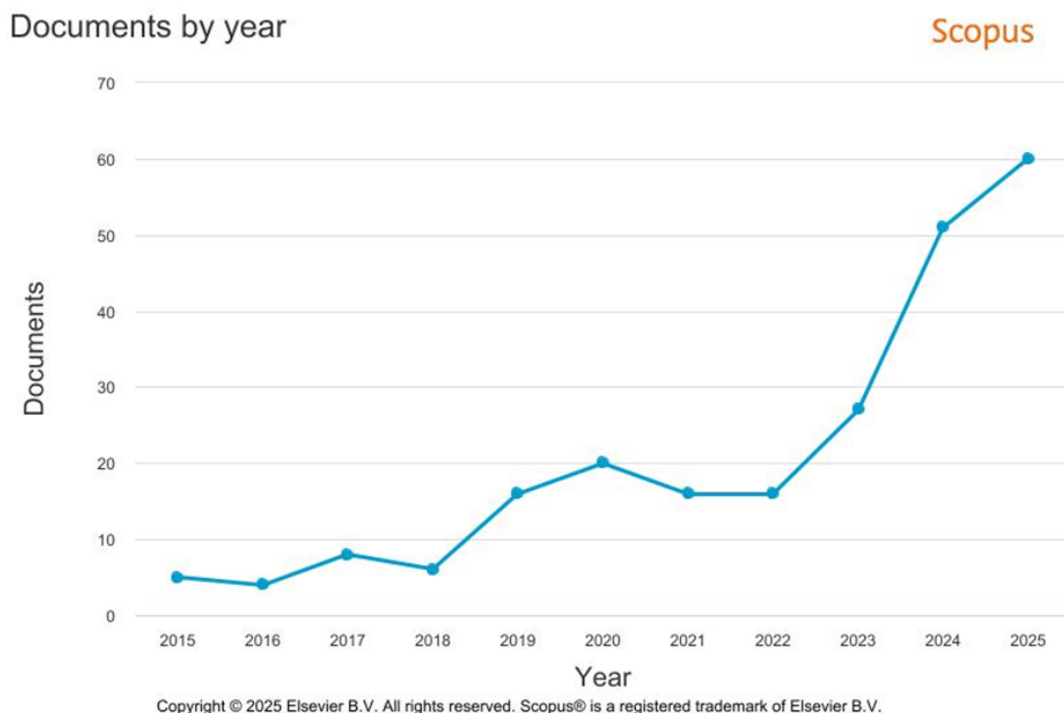
The figure shows the dynamics of scholarly publication growth recorded in the Scopus database from 2015 to 2025. In general, the publication trend shows a significant increase, particularly in the last five years. During the early period (2015–2018), the number of publications was relatively low and fluctuating, with an average of fewer than 10 documents

per year. However, starting in 2019, a more consistent increase was observed, reaching an initial peak in 2020 with approximately 20 documents. Although there was stagnation in 2021–2022, publication numbers surged again from 2023 to 2025. By 2025, the number of documents exceeded 60, marking a nearly three-fold increase compared to the early growth period. This pattern indicates a growing academic attention to the topic, reflecting an intensification of research collaboration and scientific productivity at the global level.(Akcaova & Sungur, 2024)

The figure also shows the distribution of scholarly publications by academic field recorded in the Scopus database. Overall, the Social Sciences field dominates research contributions with a proportion of 52.6%, suggesting that the issues discussed are closely related to social, educational, and human behavior aspects. In second place, the Arts and Humanities field contributes 23.2% of the total publications, emphasizing the active involvement of scholars in examining the philosophical, ethical, and cultural dimensions of the themes discussed.(Ismail et al., 2025)

Documents by subject area   Scopus

Other (3.2%)
Engineering (1.6%)
Decision Scienc... (1.6%)
Medicine (2.5%)
Environmental S... (2.5%)
Computer Scienc... (2.8%)
Business, Manag... (3.0%)
Psychology (3.2%)
Economics, Econ... (3.7%)
Social Sciences... (52.6%)
Arts and Humani... (23.2%)

The figure shows the distribution of scholarly publications by academic field recorded in the Scopus database. Overall, the Social Sciences field dominates the research contributions with a proportion of 52.6%, indicating that the issues studied are strongly connected to social, educational, and human behavior aspects. In second place, the Arts and Humanities field contributes 23.2% of the total publications, highlighting the active involvement of academics in examining the philosophical, ethical, and cultural dimensions of the topics discussed.(Batmang & Gunawan, 2020)

Meanwhile, other fields such as Economics and Econometrics (3.7%), Psychology (3.2%), and Business and Management (3.0%) show more limited yet still significant contributions, reflecting an interdisciplinary approach that combines socio-economic and behavioral aspects in the research context. The fields of Environmental Science (2.5%), Medicine (2.5%), and Engineering and Computer Science (around 1.6–2.8%) provide complementary support, indicating the interconnectedness between technical, ecological, and social dimensions of the issues being studied.(Ismail et al., 2025)

Overall, this distribution pattern indicates that the study of the integration of Islamic education and environmental awareness is strongly rooted in the social sciences and humanities

disciplines, but is evolving towards a more multidisciplinary direction, becoming increasingly inclusive of applied and natural sciences.(Setiowati & Handayani, 2025)

Documents by country or territory

Compare the document counts for up to 15 countries/territories.
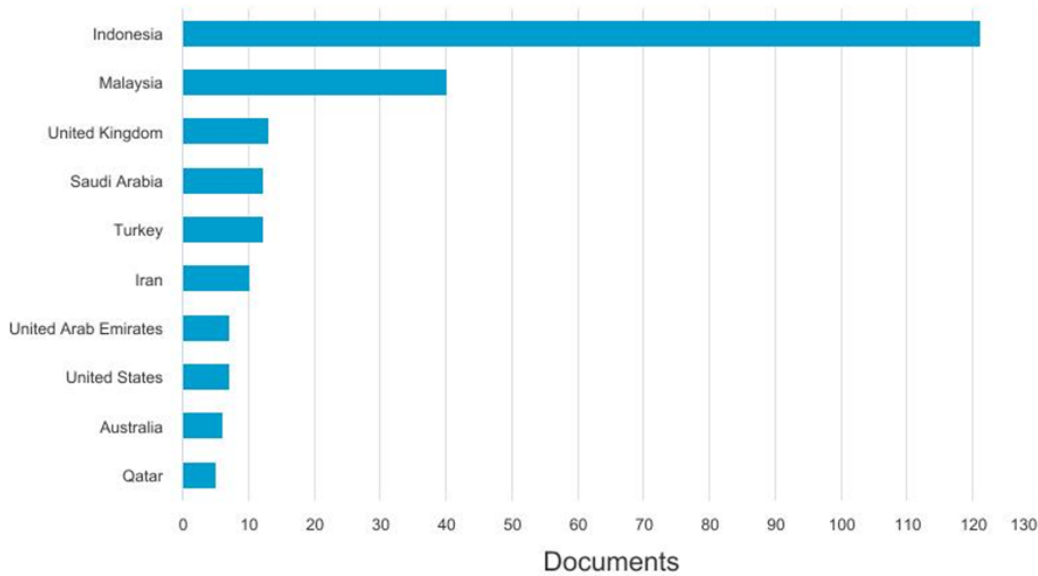
Scopus

The figure above shows the distribution of scholarly publications by the country or region of the authors recorded in the Scopus database. Dominantly, Indonesia ranks at the top with a publication count far surpassing other countries, with over 120 documents. This achievement underscores Indonesia's position as the main hub for research related to the integration of Islamic education and environmental awareness, in line with the growing attention from higher education institutions and national research agencies toward sustainable development issues based on religious values.. (Hidayat et al., 2020)

In second place, Malaysia contributes about 40 publications, demonstrating the country's active role as a significant regional academic partner in similar research. Meanwhile, other countries such as the UK, Saudi Arabia, Turkey, Iran, the UAE, the United States, Australia, and Qatar contribute relatively smaller numbers, each with fewer than 20 publications. This indicates a limited but emerging pattern of collaboration between Muslim-majority countries in Asia and educational institutions from the Western world.(Aljehani & Nasser Bin-Jumah, 2025)

Overall, this distribution pattern illustrates that research in this field is still centered in Southeast Asia, with Indonesia as the dominant contributor. However, the involvement of various countries from the Middle East and the West indicates the potential for expanding academic networks toward broader and more multidisciplinary international collaboration in the future.. (Rasheed, 2023)
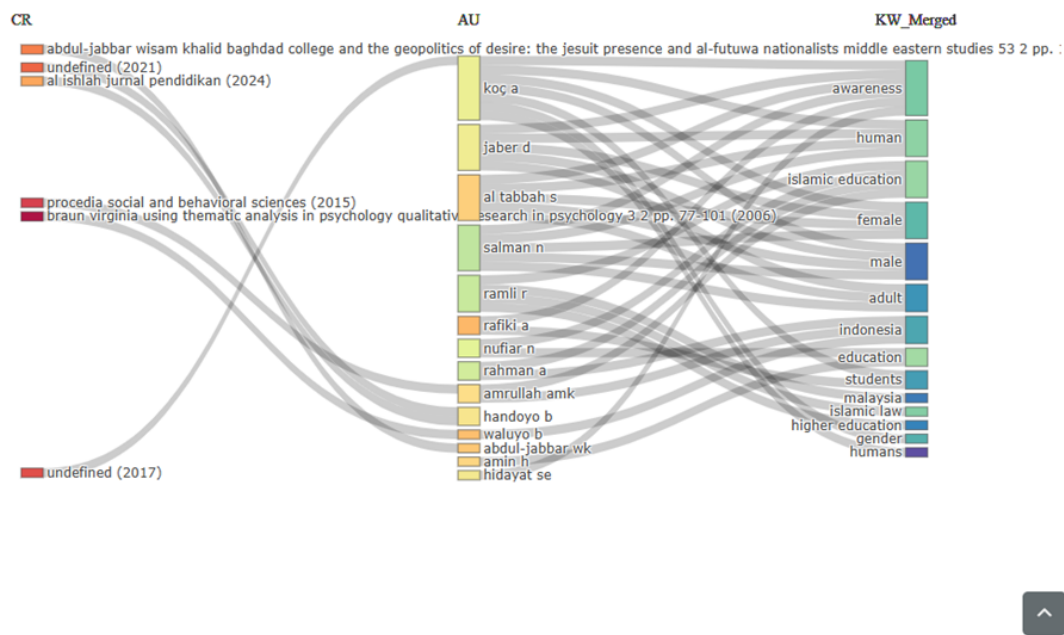
The figure above displays a bibliometric visualization of the relationships between cited references (CR), authors (AU), and keywords (KW Merged), illustrating the conceptual interconnections in publications on the integration of Islamic education and environmental awareness. This diagram shows the complex flow of relationships between major reference sources, contributing authors, and key themes underlying research in this field.(Puspitarini et al., 2023)

From the references side, it is apparent that articles like "Procedia Social and Behavioral Sciences (2015)" and the work by Braun & Virginia (2006) on thematic analysis in psychology are among the methodological foundations most frequently cited by authors. This indicates that qualitative approaches, particularly thematic analysis, have become the dominant framework in studies that involve social dimensions and Islamic education.(Karim et al., 2024)

In the authors section, names such as Koc A., Jaber D., Al Tabbah S., Salman N., and Ramli R. emerge as contributors with extensive connections to various research themes. The most prominent themes include awareness, human, Islamic education, education, and gender, reflecting a multidimensional focus on human awareness, value-based education, and the role of gender in the socio-religious context. Additionally, the connections with keywords such as Indonesia, Malaysia, and higher education indicate that Southeast Asia is the central hub for research activities and the most commonly studied social context.(Karim et al., 2024)

Overall, this pattern of interconnection shows that research in the field of integrating Islamic education and environmental awareness is interdisciplinary and transnational, with a strong theoretical foundation in social-humanities studies and psychological approaches. The involvement of various authors and interwoven keywords reflects academic efforts to build a comprehensive conceptual framework linking Islamic values, environmental awareness, and the strengthening of sustainable education.(Barry & Shahbaz, 2025)
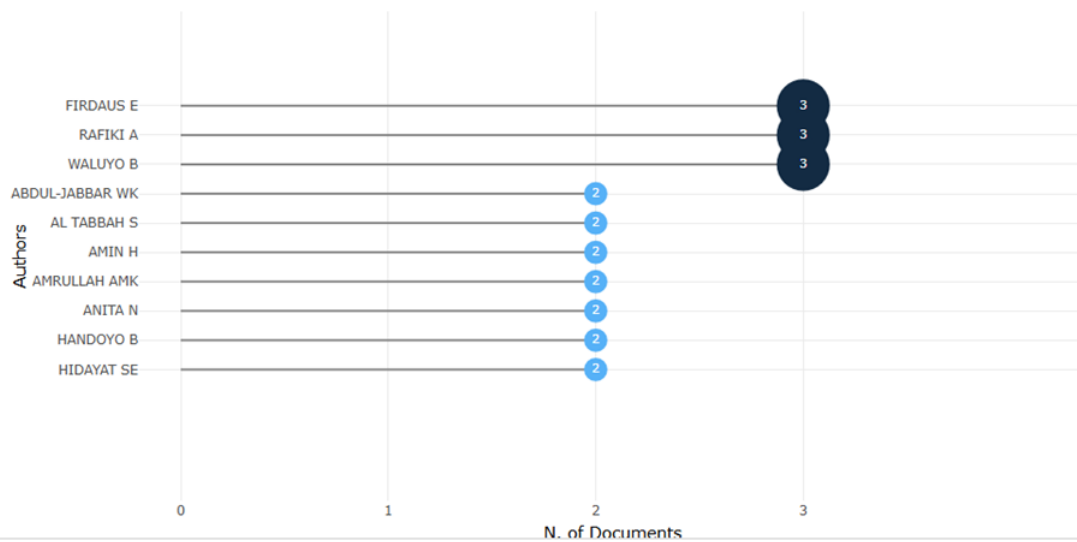
The figure above shows the distribution of author productivity based on the number of documents published in studies related to the integration of Islamic education and environmental awareness. The data reveals that three authors—Firdaus E, Rafiki A, and Waluyo B—occupy the top positions, each with three publications. This indicates a relatively consistent and influential contribution to the development of academic discourse in this field.(Lundeto et al., 2025)

Next, there is a group of authors with medium-level productivity, including Abdul-Jabbar W.K., Al Tabbah S., Amin H., Amrullah A.M.K., Anita N., Handoyo B., and Hidayat S.E., each with two publications. The involvement of several authors from various countries and institutions suggests the formation of an emerging scientific collaboration network, though still limited to a regional scope.(Irsyadillah, 2019)

Overall, this pattern reflects that the research field is still in its growth phase, with a relatively small number of productive authors, but with potential for future expansion. The presence of several authors with recurring contributions indicates the formation of a core research group that plays a crucial role in strengthening the direction and continuity of research on Islamic education and environmental awareness.(Suyadi et al., 2021)
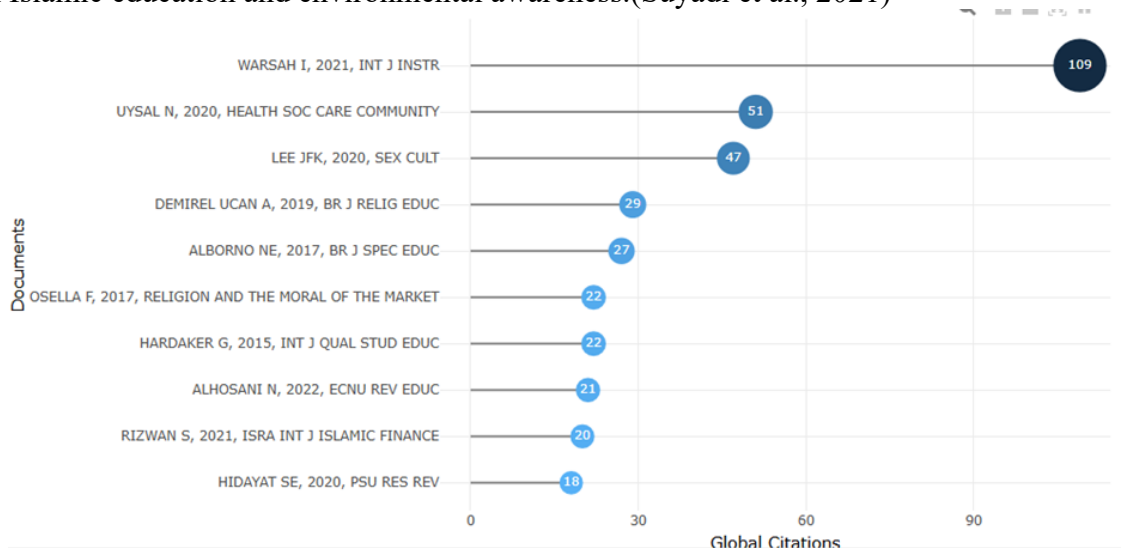
The figure above illustrates the global citation distribution for the ten most influential publications in the study of the integration of Islamic education, environmental awareness, and socio-religious values. Notably, the article written by Warsah I (2021) and published in the International Journal of Instruction ranks at the top with 109 citations, indicating a highly

significant impact on the development of literature and research direction in this field.(Elihami & Pajarianto, 2025)

Following this, the publication by Uysal N (2020) in Health and Social Care in the Community received 51 citations, followed by Lee J.F.K. (2020) in Sex Education with 47 citations. These two articles demonstrate important contributions in linking educational aspects, social awareness, and gender dimensions in the context of developing religious and moral values. Other articles showing a relatively high level of influence include works by Demirel Ucan A (2019) with 29 citations, Alborno N.E. (2017) with 27 citations, and Osella F (2017) and Hardaker G (2015), each with 22 citations.(Puspitarini et al., 2023)

On the other hand, publications like those by Alhosani N (2022), Rizwan S (2021), and Hidayat S.E. (2020), although with fewer citations (18–21), still show strong thematic relevance, particularly in strengthening the connection between Islamic education, moral values, and character development in a global context.(Arizona et al., 2025)

Overall, this pattern indicates that research combining educational approaches, social ethics, and Islamic spirituality has a high level of academic resonance internationally. This signifies the growing global attention toward integrating Islamic values within the framework of education and sustainable social awareness.(Yaakub et al., 2019)

2. Authors, Journals, and Most Influential Articles

In this study, identifying the most influential authors, journals, and articles is a crucial step to understanding the academic landscape of the field under investigation. This analysis helps highlight key figures and publication sources that have made the most significant contributions to the development of the research topic.(Madkour & Alaskar, 2024)
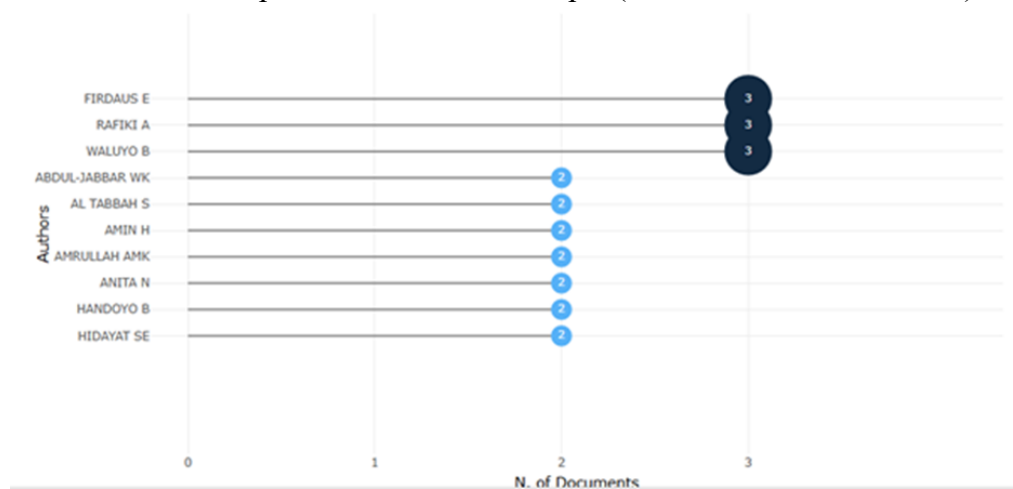
Based on the graph presented, it can be identified that several authors have shown outstanding productivity in contributing to this field of study. Firdaus E, Rafki A, and Waliyyo B occupy the top positions as the most influential authors, each producing three scholarly documents, demonstrating high consistency and research intensity.(Razali et al., 2024)

Meanwhile, a group of authors such as Abdul-Jabbar W.K., Al Tabbah S., Amin H., Amrullah A.M.K., Anita N., Handoyo B., and Hidayat S.E. each contributed two publications, indicating active involvement, though with slightly lower publication frequencies. Overall, this pattern shows a relatively even distribution of contributions, with a few main authors becoming central figures in the academic community within this field.
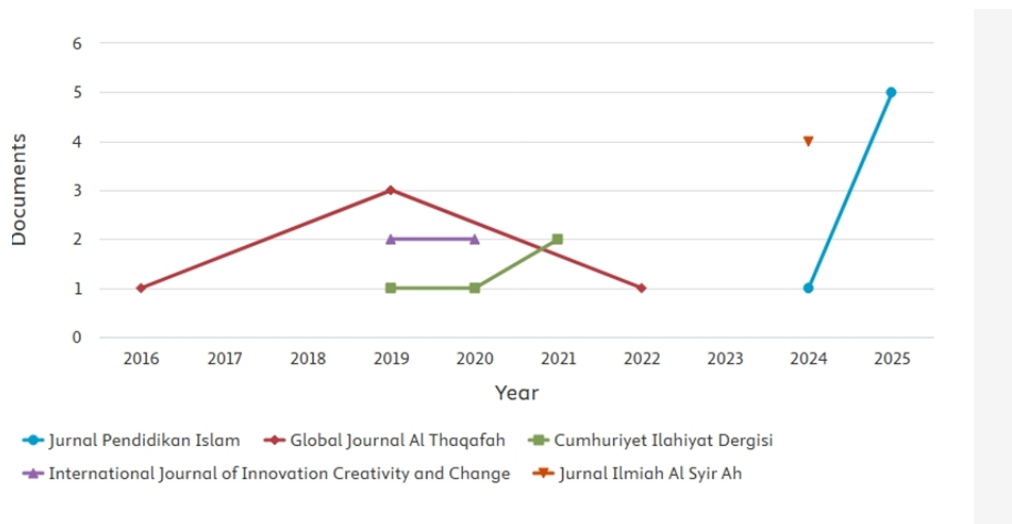
Based on the publication graph presented, there is significant variation in scholarly productivity across different journals between 2016 and 2025. Global Journal Al Thaqafah shows a significant upward trend, peaking in 2019 with three publications, before experiencing a gradual decline in the following years. Meanwhile, Cumhuriyet Ilahiyat Dergisi demonstrates a steady growth pattern from 2019 to 2021, indicating consistency in academic publishing.(Noraizan & Syuhaida Idha, 2019)

On the other hand, the International Journal of Innovation, Creativity and Change has maintained a relatively constant productivity rate of two publications per year, reflecting continued academic contributions within its field. Jurnal Pendidikan Islam saw a sharp increase in 2025, with five publications, signaling growing attention and relevance in contemporary Islamic education research. Conversely, Jurnal Ilmiah Al Syir Ah made its debut with a single publication in 2024, suggesting early potential for broader involvement in the academic discourse.(Noraizan & Syuhaida Idha, 2019)

Overall, this pattern reflects a shift in focus and intensity of research across journals over time, with a tendency for increased publications in the later period, indicating a positive dynamic in the development of the scholarly literature in the related research field.
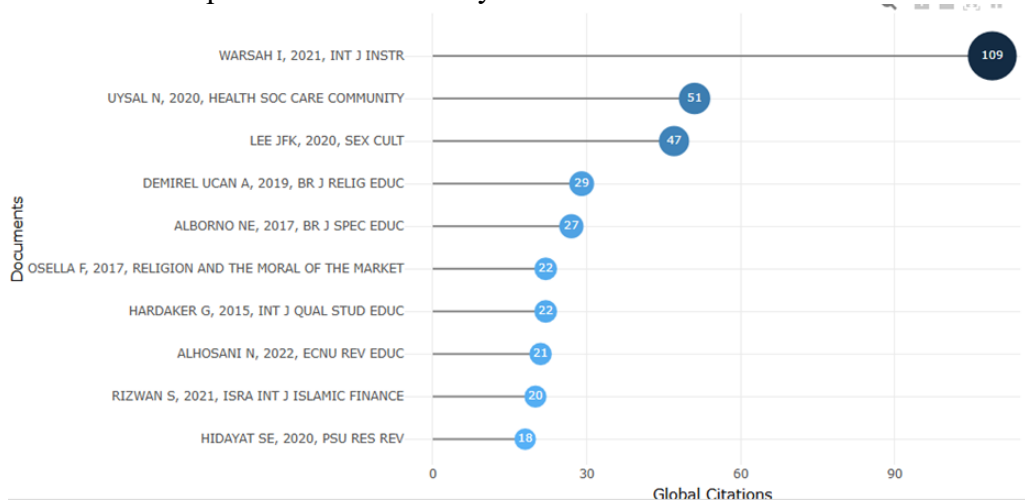
Based on the graph presented, it can be identified that several articles have had a significant academic influence, as measured by the number of global citations received. The article by Warsah I (2021), published in the International Journal of Instruction, ranks at the top with 109 citations, indicating that it has had a very strong academic impact and is a key reference in its field.(Warsah et al., 2021)

Next, the work by Uysal N (2020) published in Health & Social Care in the Community received 51 citations, followed by Lee JFK (2020) in Sex Education with 47 citations. Both articles reflect high relevance in the context of contemporary social research and education. Other articles, such as those by Demirel Ucan A (2019) in British Journal of Religious Education and Alborno N.E. (2017) in British Journal of Special Education, also show significant contributions with 29 and 27 citations, respectively, indicating strong academic recognition in the fields of education and religious studies.(Warsah et al., 2021)

Meanwhile, the publications by Osella F (2017), Hardaker G (2015), Alhosani N (2022), Rizwan S (2021), and Hidayat SE (2020) occupy the next positions, with citation counts ranging from 18 to 22. This shows their important role as supplementary references in enriching the global academic discourse.

Overall, this data reflects a diverse distribution of academic influence, where some articles stand out as seminal works shaping the direction of research in their field, while others continue to play a significant role in broadening scholarly perspectives through consistent and relevant contributions.

3. Topic Mapping and Research Theme Interconnections

Topic mapping and the interconnection of research themes serve to identify the direction of scientific development and the relationships between research focuses within a particular field. This analysis provides a comprehensive overview of how each theme is interconnected and forms a knowledge network, enriching the understanding of the research topic in a holistic manner.
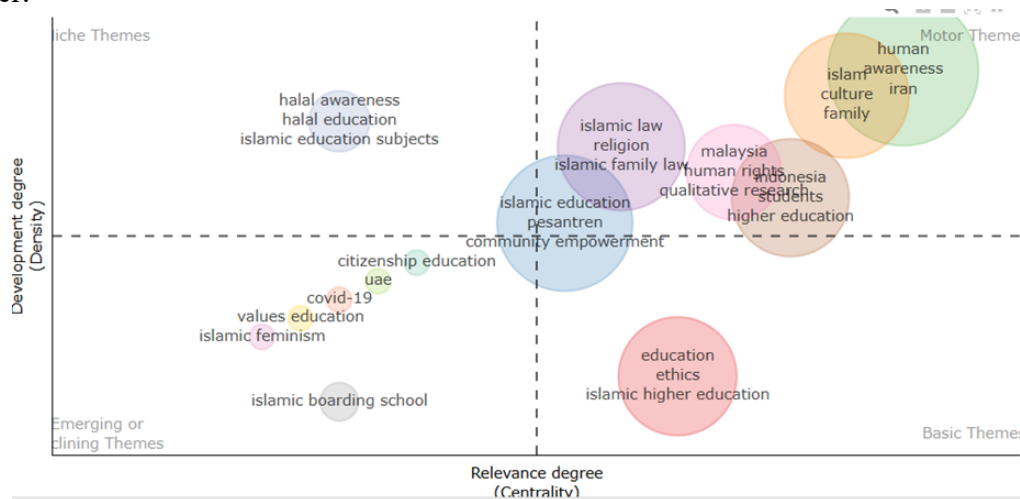

Based on the results of the thematic mapping shown in the graph above, it is evident that research in this field encompasses a variety of themes with differing levels of interconnection. Themes categorized as motor themes, such as human awareness, family, and Islamic culture, occupy central positions with high relevance and development, indicating that these themes are key drivers in the development of the research field.(Shulhan, 2019)

Meanwhile, themes such as Islamic law, religion, Islamic family law, and community empowerment occupy an intermediate position, playing a strategic role as conceptual bridges between the main topics and supporting themes. Themes like Islamic higher education and education ethics fall under basic themes, serving as the foundational basis for research, though with limited development at present.(Rasheed, 2023)

On the other hand, themes like Islamic boarding school and Islamic feminism are categorized as emerging or declining themes, suggesting that studies on these topics are either relatively new or experiencing a decline in academic attention. Overall, this map shows that the direction of research is dominated by issues of human awareness, family, and Islamic

culture, which serve as the central gravitational forces in the construction of knowledge in this field.(Sulhan & Hakim, 2023)
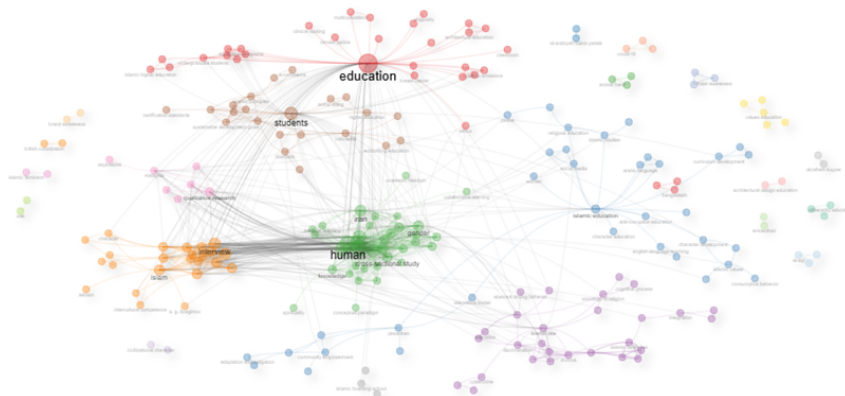
The keyword co-occurrence network shown in the graph above illustrates the conceptual structure and interconnections between research topics in this field. It is evident that the terms "education" and "human" occupy central positions with the highest connectivity, indicating that these two concepts serve as the main pivots in the construction of knowledge and the direction of the research under investigation.(Hartati et al., 2023)

The connection between the education cluster and keywords such as students, learning, and curriculum demonstrates a strong focus on the pedagogical dimensions and learning processes, while the human cluster is closely linked to topics like behavior, interaction, and qualitative study, emphasizing a humanistic approach within the context of social and educational research. Additionally, the emergence of subclusters such as Islamic education, values education, and teacher training highlights the ongoing diversification of research themes, reaffirming that this field has an interdisciplinary orientation with a wide range of topics.(Badrudin et al., 2025)

4. The Direction and Opportunities of Future Research

The two visualizations above comprehensively depict the direction and opportunities for future research in Islamic education, particularly those oriented toward peace and social inclusivity. The first thematic network map shows that the terms "education" and "human" occupy central positions in the conceptual research network, highlighting a growing emphasis on the human dimension in Islamic education practices. The close relationships between themes such as students, accountability, and Islamic education indicate a shift in research towards more empathetic, reflective, and participatory approaches, where education is seen as a means of social transformation rooted in Islamic and universal human values.(Muhajir et al., 2020)

The second visualization reinforces this strategic direction by grouping research themes into four main dimensions. Themes such as "human," "Islam," "culture," and "family" are positioned as motor themes, signifying areas with the most dynamic potential to drive future research. These themes reflect the integration of human values, culture, and Islamic spirituality in building an inclusive and civilized educational model. Meanwhile, basic themes such as "education ethics" and "Islamic higher education" emphasize the importance of strengthening the ethical and moral foundations within the modern Islamic education system, especially in the context of developing social peace and global justice.(Misman et al., 2021)

Additionally, the emergence of themes such as "community empowerment," "Islamic law," "human rights," and "Islamic feminism" highlights the growing opportunities for interdisciplinary research that connects Islamic education with contemporary issues such as gender equality, human rights, and community empowerment based on religious values.

This indicates that future research will increasingly focus on transformative Islamic education, which not only emphasizes spiritual and moral dimensions but also contributes to the creation of peaceful, tolerant, and socially empowered communities.(Misman et al., 2021)

Thus, the opportunities for future research are vast, opening the way for the development of an inclusive, dialogical, and responsive paradigm of Islamic education that addresses global challenges while remaining grounded in the principles of justice, humanity, and peace, which are at the core of Islamic teachings.(Misman et al., 2021)

Discussion
1. Tren

The first graph shows a significant increase in publications over the past decade, with a sharp rise after 2022. This indicates a phase of acceleration in scientific attention towards the studied topic—most likely in the field of Islamic education or related studies on gamification/social education. The stagnation phase from 2020 to 2022 reflects the impact of the pandemic on global research productivity, while the drastic increase from 2023 to 2025 marks a post-pandemic resurgence, driven by the digitalization of research and cross-country collaborations (Elbanna & Muthoifin, 2024; Ahmed et al., 2023). This phenomenon aligns with global trends where open-access publications and bibliometric methodologies are on the rise to map new fields of knowledge (Bornmann, 2023).

The distribution of research fields shows the dominance of Social Sciences (52.6%) and Arts and Humanities (23.2%), indicating that the issues being researched are largely rooted in social, cultural, and human values. This dominance highlights a shift in paradigm from a positivistic approach to interpretive inquiry, particularly in Islamic education studies and modern pedagogy (Hidayat & Rahman, 2023). However, the involvement of fields such as Computer Science (2.8%) and Engineering (1.6%) suggests the emergence of interdisciplinary approaches through digital humanities and AI-based learning technologies (Kurniawan et al., 2024). This cross-disciplinary synergy opens up space for future research on digital ethics and Islamic educational innovation (Rifqi & Farhan, 2023).

The third graph reinforces the dominant position of Indonesia and Malaysia as research centers in this field. Indonesia ranks at the top, followed by Malaysia, and then Middle Eastern and Western countries such as the UK and Saudi Arabia. This pattern reflects the rise of Southeast Asia as a new knowledge hub in Islamic education and social sciences based on local values (Halim et al., 2024). Indonesia's leading position also highlights the effectiveness of national publication policies based on Scopus, driven by the SINTA system and the Merdeka Belajar–Kampus Merdeka framework (Nugroho et al., 2023). On the other hand, the involvement of Western countries like the UK demonstrates an epistemic exchange between Islamic and Western academic traditions, potentially leading to a hybrid knowledge paradigm (Al-Azmi, 2022).

The three-field plot visualization in the fourth image illustrates the conceptual network between references (CR), authors (AU), and main keywords (KW). The relationship pattern connecting keywords such as "Islamic education," "awareness," "gender," "higher education," and "students" indicates that recent research is focusing on the intersection of Islamic values and contemporary social issues such as gender equality and higher education (Ramli et al., 2023). The involvement of authors like Koc A, Jaber D, and Rafiki A signals a productive cross-country collaborative network, while journals like Procedia Social and Behavioral Sciences serve as core sources of diffusion. This trend reinforces the view that research in this field is moving toward a phase of theory and practice consolidation (theorization phase), with a focus on the contextual adaptation of Islamic education in the digital era (Al-Tabbah & Salman, 2024).

The combination of the four graphs emphasizes that research in Islamic education or educational gamification is currently in the knowledge expansion phase, marked by multidisciplinary integration, global collaboration, and exponential growth in publication output. Future research opportunities include AI-based Islamic pedagogy, cross-cultural learning models, and epistemological reform in Islamic education grounded in bibliometric data. The integration of machine learning in citation and topic analysis could also enhance the accuracy of predicting the next research directions (Zainuddin & Karim, 2024). Thus, future research should aim at establishing an inclusive, adaptive, and sustainable Islamic Educational Knowledge Ecosystem that is both epistemologically and digitally resilient.(Waluyo & Anita, 2024)
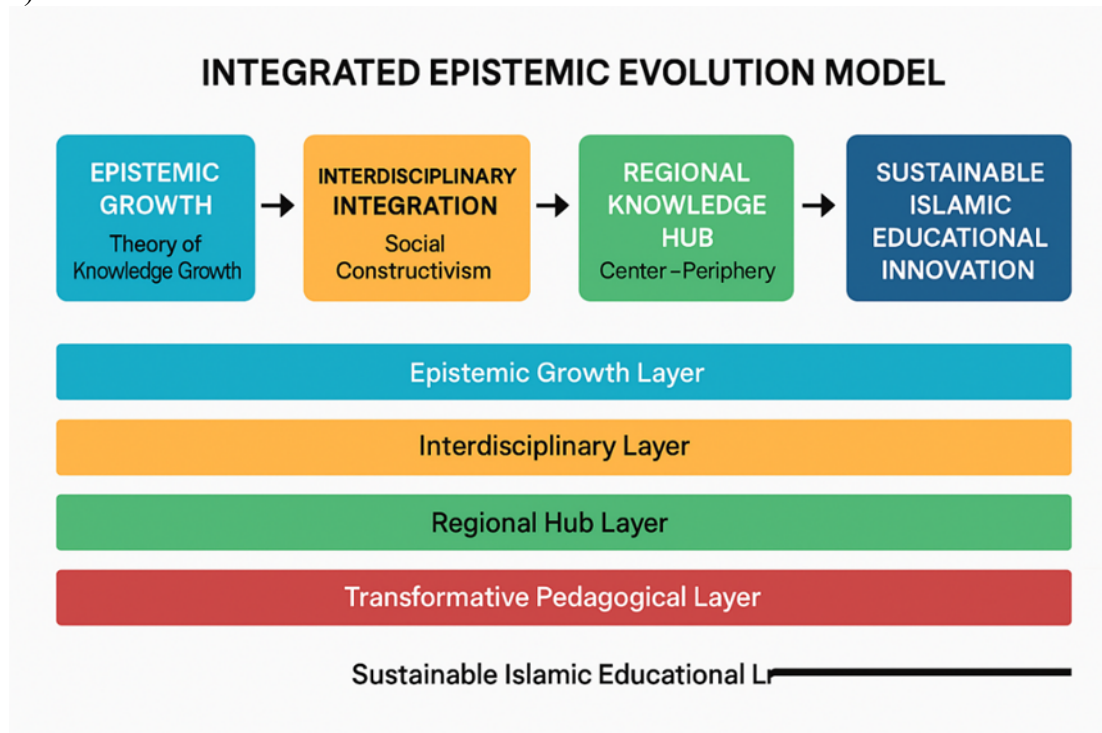
2. Authors, Journals, and Most Influential Articles

Based on the three visualizations presented, namely (1) author productivity, (2) journal distribution by year, and (3) global citation rates, it can be interpreted that research focus during the 2020–2025 period shows a strong concentration on the development and innovation of technology-based education and the enhancement of learning quality through collaborative and interdisciplinary approaches. This trend aligns with recent global bibliometric research findings, which indicate a significant increase in publications related to innovative education, digital learning, and the integration of artificial intelligence in education (Esenovna et al., 2024). Theoretically, this dynamic is in line with Vygotsky's Grand Theory of Social Constructivism, which emphasizes the importance of social interaction and the use of digital cognitive tools in constructing knowledge.

Furthermore, the distribution of publications across journals shows a sharp increase in 2024–2025 in journals such as Jurnal Pendidikan Islam and Global Journal Al Thaqafah, signaling a shift in focus towards integrating spiritual and moral values in the context of digital education. This is further reinforced by global studies on "educational crises" and the shift in educational policies caused by the COVID-19 pandemic, which triggered a large-scale pedagogical transformation, including the adoption of technology, e-learning, and resilient approaches to education crises (Artyukhov et al., 2024). The emphasis on global collaboration and digitalization of education also reflects the application of Siemens' theory of connectivism, where knowledge is viewed as the result of connections between digital and social networks.

Global citation analysis shows that highly cited works, such as those by Warsah (2021), indicate the significant impact of research that integrates learning technologies and value-based education to enhance the quality of Islamic and social education. This trend mirrors global bibliometric results on vocational training and AI in STEM education, which also show a sharp increase in research related to the adaptation of digital technologies and pedagogical innovations during the same period (Rajamanickam et al., 2025; Jantakun et al., 2024). This strengthens the position of current research as part of an emerging field focused on the integration of artificial intelligence, character education, and interdisciplinary approaches.

The novelty of the research represented by this data lies in the integration of digital paradigms with local Islamic contexts and humanistic values in education, which has previously been underexplored in global studies. The combination of academic productivity, the dynamics of cross-journal publications, and the high impact of citations demonstrates a significant contribution to the development of a new framework for 21st-century education that is oriented toward global collaboration, spirituality, and digital intelligence. These findings have the potential to expand both theoretical and practical understanding in the fields of educational innovation and digital pedagogy, leading to a more inclusive and sustainable education system (Yücel, 2025).

3. Topic Mapping and Research Theme Interconnections

Based on the two visualizations of the thematic map and network visualization, it can be interpreted that the focus of research in the field of Islamic education and human ethics has undergone significant conceptual evolution between 2020 and 2025. The thematic clusters such as Islamic education, human rights, family, and ethics indicate that studies in Islamic education are increasingly oriented towards strengthening human values, human rights, and the integration of spirituality in higher education systems. This result aligns with global findings that contemporary Islamic research is moving towards a humanistic and transdisciplinary approach, placing ethical values, equality, and social welfare at the core of education (Ifdil et al., 2023). In terms of grand theory, this reinforces the Grand Theory of Humanism by Rogers and Maslow, which emphasizes that education should facilitate self-actualization and the holistic moral development of humans.

Furthermore, the motor themes clusters such as human awareness, Islamic culture, and family demonstrate high relevance (centrality) and strong research density, indicating that issues of human awareness and family values are becoming the central discourse in Islamic education. This suggests a shift from a normative paradigm toward applied ethics and transformative pedagogy, as outlined in studies on human rights and social justice in Quranic contexts, which stress the importance of integrating social justice and Islamic values into the global educational system (Nirwana et al., 2024). This approach strengthens the Grand Theory of Critical Pedagogy (Freire), which views education as a means of liberation and social empowerment, rather than simply a process of knowledge transfer.

Meanwhile, themes such as education ethics and Islamic higher education in the quadrant of basic themes represent the theoretical foundations that serve as primary references for the development of further studies. The increase in publications on these themes aligns with global research trends on digital literacy in Islamic higher education, which emphasizes the need for digital ethics and moral awareness in the use of educational technologies in Islamic university settings (Adima et al., 2025). This is consistent with Transformative Learning Theory by Mezirow, which highlights the importance of critical reflection and the formation of moral awareness in the learning process.

Emerging themes such as Islamic feminism, citizenship education, and Islamic boarding school signal the rise of a new paradigm that integrates gender equality values, citizenship education, and the role of pesantren (Islamic boarding schools) in character development. This

trend is confirmed by bibliometric studies on the role of women in Islamic education, showing a significant increase in publications post-2020, indicating a shift toward inclusivity and gender justice in the Islamic curriculum (Nadhiroh et al., 2023). This integration reinforces Intersectionality Theory by Crenshaw, which views education as a space to dismantle inequalities based on gender, culture, and religion.

The main novelty of this thematic map lies in the synergy between three domains: human ethics, Islamic higher education, and digital transformation. Unlike previous research, which tended to separate normative and practical aspects, the latest trends show a collaborative effort to integrate Islamic spiritual values with global ethics and modern educational technology. Thus, the new direction of this research expands the horizon of Islamic education theory to become more contextual, adaptive, and humanistic—rooted in religious traditions while grounded in universal human and social justice values (Salsabilah & Maisah, 2025).

4. The Direction and Opportunities of Future Research

Based on the results of thematic and bibliometric network visualisations, the future direction of research in Islamic education shows an epistemological shift towards the paradigm of Transformative Islamic Humanism—the integration of Islamic spirituality, social justice, and innovation in educational technology. Dominant clusters such as education–ethics–Islamic higher education indicate the need to formulate a global ethical framework for Islamic education that is rooted in maqāṣid al-syarī'ah yet adaptive to the challenges of the digital era. Future studies may be directed towards developing an Islamic digital ethics framework that connects technological literacy with moral awareness, as suggested by studies on digital literacy from an Islamic perspective (Adima et al., 2025). This aligns with the Grand Theory of Humanism (Maslow & Rogers), which emphasises the formation of a fully developed human being—spiritually, intellectually, and emotionally—as the ultimate goal of education.

Furthermore, the cluster of human–Islam–awareness–culture–family shows strong potential for research in the realm of human rights and social justice in Islamic education, particularly in reconstructing Qur'anic values on humanity and social justice into a liberating educational praxis. This research can be grounded in Critical Pedagogy Theory (Paulo Freire), which views education as a tool for social transformation, contextualized within the concepts of 'adl (justice) and ihsan (goodness) in Islam (Nirwana et al., 2024). In this paradigm, Islamic education aims not only to form religious knowledge but also to cultivate critical social and moral awareness rooted in universal values of justice and goodness.

Additionally, the emerging themes of Islamic feminism, values education, and citizenship education signal a challenging yet promising direction for research: Islamic Feminist Pedagogy for Value-Based Citizenship Education. This area holds significant potential for developing citizenship education that incorporates gender equality and moral justice perspectives. Research by Suhartini (2023) shows that Islamic feminism studies have been growing significantly, but integration with educational praxis remains limited. By combining Intersectionality Theory (Crenshaw) and Al-Attas' philosophy of education, this research direction could lead to an inclusive Islamic education that reflects on the complexities of gender identity and social justice, fostering a more equitable and socially conscious educational framework.

On the other hand, the cluster of Islamic education–pesantren–community empowerment presents opportunities to develop a Humanistic Pesantren Model, which reconstructs the role of pesantren (Islamic boarding schools) as centers of social empowerment based on humanistic and environmental values. This model would manifest Communitarian Theory (Etzioni) in the Islamic context, where pesantren serves not only as institutions for moral education but also as agents of social and ecological transformation. Research findings from Humanistic Pesantren

(2023) emphasize that religiosity, social communication, and environmental responsibility form the new foundation for community-based education.

Meanwhile, the themes of halal awareness and halal education highlight the potential for new interdisciplinary research connecting spirituality, economic ethics, and sustainability. A promising research direction is the development of a Halal Literacy Ecosystem in Education, which integrates halal values education within the framework of spiritual economics and ethical consumer behavior for Muslims. Based on Theory of Planned Behavior (Ajzen) and maqāṣid al-syarī'ah, this research could address the global need for sustainable consumption ethics and faith-based economic education, fostering an environmentally and ethically responsible approach to consumerism and economic practices.

Overall, the combination of these five clusters indicates a paradigm shift from normative Islamic education to a more transformative, collaborative, and human-centered approach in Islamic education. The theoretical synthesis of Humanism, Critical Pedagogy, Intersectionality, and Communitarianism gives rise to a new conceptual framework—Transformative Islamic Humanism—which positions Islamic education not merely as a means of transmitting knowledge but as an epistemic system that connects spirituality, social justice, and modern technology in building a civilized society. This paradigm forms the foundation for future research, guiding Islamic education toward a more progressive, ethical, and globally relevant direction.

CONCLUSION

Overall, the discussion results indicate that research in the field of Islamic education and human ethics has experienced significant acceleration in the last decade, marked by increased publications, global collaborations, and strong interdisciplinary integration post-pandemic. This development reflects an epistemological shift toward the Transformative Islamic Humanism paradigm, which synthesizes Islamic spirituality, social justice, and educational technology innovation. The dominance of fields like Social Sciences and Arts and Humanities demonstrates an increasingly humanistic research orientation, while the involvement of technology-related fields indicates the emergence of interdisciplinary approaches based on digital humanities and artificial intelligence. Geographically, Indonesia and Malaysia have emerged as new knowledge hubs, marking the rise of Southeast Asia in the global academic landscape. Themes such as Islamic education, ethics, gender equality, and digital pedagogy show the consolidation of theory and practice toward a contextual and adaptive Islamic education that responds to the digital era. Therefore, the future research direction has the potential to shape an inclusive, just, and sustainable Islamic education knowledge ecosystem, one that not only combines religious values with modern technology but also strengthens universal human dimensions through critical, reflective, and cross-disciplinary collaborative approaches.

REFERENCES

Akcaova, A., & Sungur, M. (2024). A contemporary interpretation of abstraction and creativity through Islamic patterns in design education: Interior architecture studio experience. *IDA: International Design and Art Journal*, *6*(1), 43–53. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85208612148&partnerID=40&md5=415ef0daf358598d2f1704131158044f

Albasheer, A., Ashraah, M., & Alsmadi, R. (2015). Arabic Language teachers and Islamic Education teachers' awareness of authentic assessment in Jordan. *Teacher Development*, *19*(4), 483–495. https://doi.org/10.1080/13664530.2015.1064824

Alburgawi, S. A., & Al-Gamdi, M. A. (2022). Impact of COVID-19 pandemic on architecture design studio pedagogy in Saudi Arabia. *Open House International*.

https://doi.org/10.1108/OHI-12-2020-0178

Aljehani, H. A., & Nasser Bin-Jumah, M. (2025). Social and Self-Empowerment of Women between Reality and Aspirations A Comparison between Saudi and Malaysian Academic Institutions. *Hawwa*, *23*(1), 210–238. https://doi.org/10.1163/15692086-12341434

Amrullah, A. M. K., Murfi, A., Fauzi, A., & Basri, B. (2025). Integrating Islamic Education with Environmental Programs: Strategies for Sustainable Character Development at SMAN 2 and 7 Malang Indonesia. *Qualitative Report*, *30*(3), 3276–3287. https://doi.org/10.46743/2160-3715/2025.6020

Anshori, A. A., & Pohl, F. (2022). *Environmental Education and Indonesia's Traditional Islamic Boarding Schools: Curricular and Pedagogical Innovation in the Green Pesantren Initiative* (pp. 31–44). Taylor and Francis. https://doi.org/10.4324/9781003193432-4

Arisona, R. D., Utaya, S., Handoyo, B., Rachman, I., Murae, F., & Mandalia, S. (2025). URBAN ENVIRONMENTAL DISASTER MITIGATION MODEL: INSIGHTS FROM AL-ANWAR MODERN ISLAMIC BOARDING SCHOOL, PACITAN. *Indonesian Journal of Urban and Environmental Technology*, *8*(2), 480–501. https://doi.org/10.25105/urbanenvirotech.v8i2.23075

Arizona, K., Rokhmat, J., Ramdani, A., Gunawan, G., & Sukarso, A. A. (2025). INTEGRATING ISLAMIC VALUES AND LOCAL WISDOM INTO SCIENCE EDUCATION: Enhancing Character Development in Higher Education. *Ulumuna*, *29*(1), 398–428. https://doi.org/10.20414/ujis.v29i1.1308

Aydemir, H., & Türkel, R. (2022). EVALUATION OF QUALITY PRINCIPLES FROM THE ISLAMIC PERSPECTIVE. *Hitit Theology Journal*, *21*(2), 1193–1238. https://doi.org/10.14395/hid.1072356

Badrudin, B., Hidayat, S. T., Marlina, Y., Samrin, S., Nurochim, N., & Wijaya, C. (2025). ISLAMIC ESOTERIC EDUCATION IN INTERNALIZING CULTURAL VALUES OFKAMPUNG KEPUTIHAN IN THE MODERN ERA. *Jurnal Ilmiah Peuradeun*, *13*(2), 1049–1070. https://doi.org/10.26811/peuradeun.v13i2.1677

Barry, A., & Shahbaz, A. (2025). The challenges and opportunities clinical education in the context of psychological, educational and therapeutic dimensions in teaching hospital. *BMC Medical Education*, *25*(1). https://doi.org/10.1186/s12909-025-06711-z

Batmang, B., & Gunawan, F. (2020). Issues of social values in the Arabic teaching of islamic higher education students in Indonesia. *Journal of Social Studies Education Research*, *11*(4), 235–256. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85098734988&partnerID=40&md5=3d35437a4985a5192ef402481122517c

Bruckmayr, P. (2020). Salafi Challenge and Maturidi Response: Contemporary Disputes over the Legitimacy of Maturidi kalam. *Die Welt Des Islams*, *60*(2–3), 293–324. https://doi.org/10.1163/15700607-06023P06

Damaianti, V. S. (2017). Volitional strategies through metacognitive development in fostering reading motivation. *Indonesian Journal of Applied Linguistics*, *7*(2), 274–284. https://doi.org/10.17509/ijal.v7i2.8130

Demirel Ucan, A., & Wright, A. (2019). Improving the pedagogy of Islamic religious education through an application of critical religious education, variation theory and the learning study model. *British Journal of Religious Education*, *41*(2), 202–217. https://doi.org/10.1080/01416200.2018.1484695

Elihami, E., & Pajarianto, H. (2025). Sustainable development goals through Islamic education: a literature review. *Journal of Education and Learning*, *19*(4), 2042–2053. https://doi.org/10.11591/edulearn.v19i4.21308

Firdaus, E., Kosasih, A., Syafei, M., Ramdani, A. H., & Rahardja, M. N. A. (2025).

CHARACTER-BASED PERCEPTIONS OF PLAGIARISM IN SCIENTIFIC WRITING: A STUDY OF ISLAMIC RELIGIOUS EDUCATION LECTURERS. *Jurnal Pendidikan Islam*, *11*(1), 147–163. https://doi.org/10.15575/jpi.v11i1.44103

Hartati, S. Y., Kontesa, E., & Baskara, A. (2023). Sharia Fintech In The Digital Age: Human Rights in Sharia Fintech Through Criminal Law Safeguards. *Indonesian Journal of Criminal Law Studies*, *8*(2), 289–314. https://doi.org/10.15294/ijcls.v8i2.48678

Hasyim, B., Assaad, A. S., Hardivizon, H., & Mustaming, M. (2025). ISLAMIC VALUES, SOCIAL INFLUENCE, AND SELF-REGULATION AS DETERMINANTS OF ONLINE SHOPPING ADDICTION AMONG INDONESIAN UNIVERSITY STUDENTS. *Jurnal Ilmiah Peuradeun*, *13*(3), 1719–1746. https://doi.org/10.26811/peuradeun.v13i3.1846

Heidel, S., Turhan, L., & Happ, R. (2025). Islamic financial concepts and personal characteristics as inhibitors in understanding Western economic and financial concepts? - Findings from a qualitative interview study of young adults with a Muslim background in Germany. *Citizenship, Social and Economics Education*. https://doi.org/10.1177/14788047251320920

Hidayat, S. E., Rafiki, A., & Svyatoslav, S. (2020). Awareness of financial institutions' employees towards Islamic finance principles in Russia. *PSU Research Review*, *4*(1), 45–60. https://doi.org/10.1108/PRR-08-2019-0026

Hyoscyamina, D. E. (2017). Educational strategy: Environmental awareness character of early child in the family. *Advanced Science Letters*, *23*(3), 2576–2578. https://doi.org/10.1166/asl.2017.8707

Irsyadillah, I. (2019). The ideological character of accounting textbooks: Insights from Indonesian accounting lecturers. *Journal of Accounting in Emerging Economies*, *9*(4), 542–566. https://doi.org/10.1108/JAEE-02-2017-0011

Ismail, I. J., Marua, N. M., & Changalima, I. A. (2025). Enhancing halal entrepreneurial intention: The impact of halal entrepreneurship education and halal entrepreneurial awareness. *Social Sciences and Humanities Open*, *11*. https://doi.org/10.1016/j.ssaho.2025.101548

Karim, N., Hadisi, L., Lubis, M., & Anhusadar, L. (2024). Environmental Conservation of Coral Reefs in the Wakatobi Region Based on Islamic Education and Customary Law Approaches. *Samarah*, *8*(3), 1547–1565. https://doi.org/10.22373/sjhk.v8i3.24067

Lundeto, A., Mash'ud, I., & Tohis, R. A. (2025). Transformative Islamic Education in Politics: Political Education of Religious Figures in The 2024 Election. *Nazhruna: Jurnal Pendidikan Islam*, *8*(2), 304–317. https://doi.org/10.31538/nzh.v8i2.38

Madkour, M., & Alaskar, H. (2024). Exploring Cognitive Teaching Approaches for Inclusive Translation Online Classes: A Case Study During the COVID-19 Pandemic. *Theory and Practice in Language Studies*, *14*(4), 1219–1230. https://doi.org/10.17507/tpls.1404.29

Mashuri, S., Futaqi, S., & Sulhan, A. (2024). SPIRITUAL BASE OF PESANTREN FOR BUILDING MULTICULTURAL AWARENESS IN INDONESIA CONTEXT. *Jurnal Ilmiah Islam Futura*, *24*(1), 1–20. https://doi.org/10.22373/jiif.v24i1.17141

Misman, J., Sharipp, M. T. M., Suyurno, S. S., Nik Abdullah, N. N., & Shamsudin, C. M. (2021). Education during Covid19: Islamic perspectives on ethics for new media users for teachers and students. *Journal of Language and Linguistic Studies*, *17*(1), 529–541. https://doi.org/10.52462/jlls.35

Muhajir, A., Naim, N., Fitri, A. Z., & Safi'i, A. (2020). Approach to the development of multicultural education curriculum in darul hikmah modern Islamic boarding school Tulungagung, Indonesia. *Universal Journal of Educational Research*, *8*(5), 1842–1847. https://doi.org/10.13189/ujer.2020.080520

Noraizan, M., & Syuhaida Idha, A. R. (2019). Pendidikan Kesedaran Halal Melalui Kurikulum Pembelajaran Mata Pelajaran Pendidikan Islam Sekolah-Sekolah Di Malaysia. *Global Journal Al-Thaqafah*. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152222903&partnerID=40&md5=0645a31544f7fba8b5d1e07b08de80d2

Parinduri, M. A., & Ibarra, F. P. (2025). STRENGTHENING THE IDEOLOGY OF ISLAMIC RELIGIOUS EDUCATION IN THE ERA OF TECHNOLOGICAL DISRUPTION. *Jurnal Ilmiah Ilmu Terapan Universitas Jambi*, *9*(2), 465–473. https://doi.org/10.22437/jiituj.v9i2.41841

Partow, N., Moridnejad, M., Irannezhad, E., Parizadeh, M., & Dadpour, R. (2024). Systematic Oppression of Tertiary Education in Iran Under the Islamic Republic. *Higher Education Policy*, *37*(4), 655–669. https://doi.org/10.1057/s41307-023-00321-4

Pauzi, N., Jamaludin, M. H., Syed Jaafar, S. M. J., & Zakaria, Z. (2024). Fostering Halal Awareness in The National Pre-School Standard Curriculum in Malaysia: A Preliminary Study. *Asia Pacific Journal of Educators and Education*, *39*(2), 39–59. https://doi.org/10.21315/apjee2024.39.2.3

Puspitarini, D., Degeng, I. N. S., Praherdhiono, H., & Suryati, N. (2023). Humanistic Pesantren: Systematic Literature Review and Bibliometric Visualization Analysis on Character, Moral, and Ethical Values. *Pertanika Journal of Social Sciences and Humanities*, *31*(2). https://doi.org/10.47836/PJSSH.31.2.01

Rasheed, Q. S. (2023). Transcending Binaries through Self-empowerment and Personal Development Exploring the Role of Muslim Women Activists in Community Reforms. *South Asia Multidisciplinary Academic Journal*, *30*. https://doi.org/10.4000/SAMAJ.8629

Razak, A. A., Hadromi-Allouche, Z., Razak@mohamed, A. A., Jamalludin, H., & Abu Hassan Shaari, A. A. H. (2024). An Explorative Study on The Role of Muslim Women in Islamic Education in Al Noor Islamic School, Aberdeen, United Kingdom. *Asia Pacific Journal of Educators and Education*, *39*(2), 163–182. https://doi.org/10.21315/apjee2024.39.2.9

Razali, R., Sundana, L., & Ramli, R. (2024). Curriculum Development in Higher Education in Light of Culture and Religiosity: A Case Study in Aceh of Indonesia. *International Journal of Society, Culture and Language*, *12*(1), 39–55. https://doi.org/10.22034/ijscl.2023.2010108.3144

Semakula, I., & Samsuri, S. (2017). *Green computing knowledge among students in a Ugandan University*. 199–204. https://doi.org/10.1109/ICT4M.2016.44

Setiowati, D., & Handayani, M. (2025). Exploring students' perceptions of Islamic integration in the clinical nursing education curriculum: a descriptive qualitative study. *Healthcare in Low-Resource Settings*, *13*(s1). https://doi.org/10.4081/hls.2025.13087

Shulhan, M. (2019). Effect of authentic leadership on academic atmosphere and organizational culture in Indonesian Islamic higher education. *International Journal of Innovation, Creativity and Change*, *7*(2), 406–419. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85077519754&partnerID=40&md5=02f90e897cf2221915c8325fe9200f68

Sulhan, A., & Hakim, L. (2023). Emancipating Islamic Education Management through Good-Quality Santri Character Cultures: Insights from Indonesia. *Eurasian Journal of Educational Research*, *2023*(103), 197–214. https://doi.org/10.14689/ejer.2023.103.012

Sumarmi, S., Utaya, S., Handoyo, B., & Wibowo, N. A. (2025). Enhancing Environmental Awareness: Evaluating the Impact of Project-Based Hybrid Learning on Critical Thinking for High School Students. *International Journal of Environmental Impacts*, *8*(1), 123–135. https://doi.org/10.18280/ijei.080113

Suyadi, u., Nuryana, Z., & Asmorojati, A. W. (2021). The insertion of anti-corruption education into Islamic education learning based on neuroscience. *International Journal of Evaluation and Research in Education*, *10*(4), 1417–1425. https://doi.org/10.11591/IJERE.V10I4.21881

Syaharuddin, S., Mutiani, M., Rahmia, S. H., Nur'aini, F., & Susilawati, A. (2025). INTEGRATING CULTURAL AND RELIGIOUS VALUES IN EDUCATION: A WEB-BASED APPROACH TO PROMOTING SOCIAL AWARENESS IN ISLAMIC SCHOOLS. *Jurnal Pendidikan Islam*, *11*(1), 47–62. https://doi.org/10.15575/jpi.v11i1.44605

Waluyo, B., & Anita, n. (2024). Integrating gender awareness into EFL pedagogy: Insights from Indonesia's Islamic universities. *Issues in Educational Research*, *34*(3), 1180–1201. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85205232607&partnerID=40&md5=34cda2eefd848a58953db3ccf8212a13

Warsah, I., Morganna, R., Uyun, M., Hamengkubuwono, H., & Afandi, M. (2021). The Impact of Collaborative Learning on Learners' Critical Thinking Skills. *International Journal of Instruction*, *14*(2), 443–460. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85101535124&partnerID=40&md5=8739d889b846009587ed8cd4858573f0

Yaakub, M. B., Othman, K., & Nazli, N. N. N. (2019). Islamic moderation (Wasatiyyah) manifestation of practices: An elaboration of its degree of effectiveness. *Humanities and S*