Islamic Management: Jurnal Manajemen Pendidikan Islam, VOL: 8/No: 01 P-ISSN: 2614-4018 DOI: 10.30868/im.v7io2.7793 E-ISSN: 2614-8846

Date Received : November 2024
Date Revised : November 2024
Date Accepted : January 2025
Date Published : January 2025

ACTUALIZATION OF RELIGIOUS EDUCATION AND SCIENCE IN EDUCATING THE CHARACTER OF LEARNERS IN SCHOOLS AND MADRASAHS

Suci Nur Rahayu

Universitas Islam Negeri Kiai Haji Achmad Siddiq Jember, (sucinurrahayu55@gmail.com)

Umi Farihah

Universitas Islam Negeri Kiai Haji Achmad Siddiq Jember, (u_farihah@yahoo.com)

Andi Suhardi

Universitas Islam Negeri Kiai Haji Achmad Siddiq Jember, (suhardiandi8@gmail.com)

Kata Kunci:

ABSTRACT

Islamic Religious Education and Science, character education This study explores the integration of religious and science education as a transformative approach to character-building in schools and madrasahs. Utilizing a qualitative method with a literature review approach, data were collected from scientific journals, books, and policy documents, and analyzed using content analysis to identify themes such as ethical values, scientific principles, and integration strategies. The findings highlight the complementary nature of religious teachings, which provide a moral foundation, and science education, which develops critical thinking and problem-solving skills. Practical applications include designing integrated curricula, utilizing interdisciplinary teaching methods, and leveraging technology like virtual simulations to enhance learning. Teacher training and professional development are critical to equip educators with the skills to implement this approach effectively. Additionally, technological tools and online platforms expand access to resources and create flexible, engaging learning environments. Globally, the integration supports 21stcentury educational goals, fostering creativity, collaboration, and sustainable problem-solving aligned with ethical principles. It prepares learners to address complex societal challenges such as climate change and technological ethics with a holistic mindset. This study concludes that the integration of religious and science education cultivates individuals who are intellectually capable, morally grounded, and equipped to contribute positively to society and the global community.

A. INTRODUCTION

Education is a cornerstone of societal development, shaping individuals' character and contributing to ethical and harmonious communities (Hasbullah et al., 2019). In Indonesia, the emphasis on education is deeply intertwined with the country's spiritual and cultural values, particularly through the integration of religious and scientific education. Islamic education provides moral and spiritual guidance, while science fosters critical thinking and innovation, forming a balanced foundation for character-building (Rifa'i & Choli, 2020).

The synergy between religious and scientific education becomes increasingly relevant in the context of rapid technological advancements and societal challenges. The Fourth Industrial Revolution, characterized by automation and artificial intelligence, demands individuals who can balance technical expertise with ethical considerations. (Miftah, 2017) The integration of these two disciplines addresses the criticism of religious education being overly dogmatic and science education lacking moral grounding (Herni, 2018).

Religious education instills fundamental values such as honesty, compassion, and responsibility, forming the basis of ethical behavior. Meanwhile, science education develops students' analytical and problem-solving skills, enabling them to navigate the complexities of modern life.(Husna et al., 2020) For example, linking the Quranic concept of stewardship with ecological science not only enriches students' understanding of environmental responsibility but also reinforces their faith (Rahmania & Tabroni, 2021).

Character education, deeply rooted in Indonesia's national philosophy of Pancasila, serves as a unifying force that bridges spiritual and intellectual pursuits. Each principle of Pancasila divinity, humanity, unity, democracy, and justice can be actualized through a curriculum that integrates religious teachings with scientific inquiry. (Siregar et al., 2020) This approach strengthens national identity while preparing students for global challenges (Kosim, 2020).

In educational institutions, this integration can be implemented through a multidisciplinary approach, where religious values are woven into scientific lessons. For instance, Quranic verses highlighting the marvels of creation can be used to teach astronomy or biology, illustrating the interconnectedness of faith and science. (Husna et al., 2020) Such an approach not only enhances students' academic understanding but also deepens their spiritual awareness (Mansir, 2021).

Moreover, the integration of religious and scientific education fosters holistic development, addressing the cognitive, emotional, and spiritual dimensions of learning. In an era marked by moral and social crises, this educational model offers a pathway to cultivate individuals who are both ethically grounded and intellectually equipped. (Rifa'i & Choli, 2020) For example, teaching physics concepts alongside Quranic references to the universe inspires students to see science as a means of understanding divine creation. (Herni, 2018)

The implementation of this integrated approach requires significant shifts in teaching methodologies and curriculum design. Educators must be trained to creatively and effectively connect religious principles with scientific theories, making lessons more relevant and engaging.(Rahmania & Tabroni, 2021) This requires professional development programs and the provision of resources that support interdisciplinary teaching.(Siregar et al., 2020)

Technology plays a crucial role in facilitating this integration, offering tools that make learning interactive and accessible. For instance, digital simulations can demonstrate scientific principles while incorporating religious contexts, providing students with a comprehensive learning experience. (Kosim, 2020) Additionally, online platforms can host resources that bridge the gap between traditional religious education and modern scientific knowledge. (Husna et al., 2020)

The integration of these disciplines is not limited to formal education settings but extends to community-based initiatives. Collaboration between schools, parents, and local organizations can create a supportive environment for students to apply their integrated knowledge in real-life contexts. (Miftah, 2017) For example, environmental conservation projects rooted in Islamic ethics can engage communities in addressing local ecological issues. (Rahmania & Tabroni, 2021)

At its core, the integration of religious and scientific education aligns with the Islamic concept of "ulul albab," emphasizing a balanced development of intellectual, emotional, and spiritual faculties.(Herni, 2018) This approach encourages students to become critical thinkers and empathetic leaders, capable of addressing societal challenges with integrity and innovation.(Mansir, 2021)

However, the success of this integration depends on the collective efforts of educators, policymakers, and the community. Curriculum reforms must reflect the interconnectedness of these disciplines, moving away from the traditional dichotomy of religious and secular education. (Siregar et al., 2020) For instance, thematic lessons that incorporate Islamic teachings into physics or chemistry can demonstrate the relevance of faith in understanding the natural world. (Husna et al., 2020)

The integration model also addresses the limitations of current educational practices, which often fail to connect academic knowledge with ethical applications.(Rifa'i & Choli, 2020) By embedding religious values into scientific education, schools can cultivate a generation of learners who are not only competent but also compassionate and socially responsible.(Kosim, 2020)

Furthermore, this model prepares students to face global challenges such as climate change, social inequality, and technological disruptions. By integrating ethical considerations into scientific education, students learn to approach these issues with a holistic perspective, balancing innovation with sustainability.(Miftah, 2017) For instance, lessons on renewable energy can include discussions on stewardship from an Islamic perspective, fostering a sense of responsibility toward future generations.(Rahmania & Tabroni, 2021)

Despite the growing recognition of the need to integrate religious and scientific education, significant gaps remain in its practical implementation. Current literature largely focuses on the theoretical frameworks for integration but offers limited empirical evidence on how this integration impacts character building and academic outcomes. (Husna et al., 2020) Moreover, studies on curriculum design often overlook the specific strategies required to align religious teachings with contemporary scientific advancements, leaving educators with inadequate resources and guidance. (Siregar et al., 2020) This gap hinders the widespread adoption of an interdisciplinary approach in schools and madrasahs, particularly in diverse educational settings.

Another critical gap lies in the adaptation of technology to support the integration of religious and scientific education. While technology has been recognized as a powerful tool for enhancing learning experiences, its potential remains

underexplored in the context of combining religious and scientific principles.(Kosim, 2020) Existing research has yet to investigate how interactive tools, such as simulations or digital platforms, can effectively bridge the two fields to foster students' intellectual and moral development.(Rahmania & Tabroni, 2021) Addressing these gaps is essential to develop a comprehensive educational model that not only imparts knowledge but also cultivates ethical and socially responsible individuals.

At the school and madrasah level, this program can be implemented through activities such as interactive discussions, collaborative projects, and experiential learning. Teachers can also leverage technology, such as science simulations, to visually and engagingly convey religious concepts. The ultimate goal of this integration is to nurture a generation that excels in character, is well-informed, and actively contributes to society. By blending the strengths of religious and scientific education, schools and madrasahs can play a transformative role in shaping a brighter future for individuals and the community at large.

B. METHOD

This research uses a qualitative method with a literature study approach. Data sources were obtained from various scientific journals, books, research reports, and education policy documents. The data were analyzed using content analysis techniques to identify the main themes relevant to the research topic. The main focus was to understand the concept of character education, the role of religious and science education, and the integration strategy of both. In the analysis process, researchers categorized the data based on character indicators such as honesty, responsibility, empathy, and curiosity. This approach enabled researchers to identify the relationship between theory and practice in the actualization of religious and science education. Data validity was ensured through source triangulation and discussions with experts in the field of education.

To deepen the analysis, this study also adopted thematic coding to systematically classify and interpret data into predefined categories aligned with research objectives. The thematic coding process involved an iterative review of the literature, allowing for the identification of emergent patterns and connections between religious and scientific education. This process enabled the research to highlight how these two fields converge to support character education in diverse educational settings, particularly in schools and madrasahs. Additionally, this study employed comparative analysis to evaluate the effectiveness of integration strategies across various contexts. By comparing findings from different studies and case examples, the research identified best practices and common challenges faced by educators in implementing integrated education models. This approach ensured that the findings are not only contextually relevant but also applicable to broader educational frameworks, providing a robust basis for future research and practical implementation (Sugiyono, 2020).

C. RESULT AND DISCUSSION

The findings of this study emphasize the critical role of religious education in establishing a moral foundation for learners. Religious education instills core ethical values such as honesty, compassion, gratitude, and responsibility, which are essential for personal and social development. Meanwhile, science education cultivates analytical thinking, problem-solving abilities, and an appreciation of the natural world. Together,

these disciplines provide a comprehensive framework for character education, fostering both intellectual and moral growth.

The integration of religious and scientific education does not diminish the distinct strengths of either field; instead, it amplifies their combined potential. For example, lessons on environmental conservation can integrate Islamic teachings on stewardship, as outlined in the concept of humans as caliphs of the Earth, with ecological principles. This dual approach not only enhances students' understanding of environmental issues but also motivates them to act responsibly from both a scientific and ethical standpoint.

Practical Application in Schools and Madrasahs

This integration can be effectively implemented through a curriculum that emphasizes interconnected learning. Teachers can design lessons that merge religious principles with scientific theories, making the material more relatable and impactful. For instance, Quranic verses about the creation of the universe can be paired with astronomy lessons, providing students with a holistic perspective. Furthermore, extracurricular programs such as ethics-based science clubs or debates on technological advancements and their moral implications serve as practical platforms for students to explore these integrated concepts.

Interactive teaching methods also play a significant role in embedding this integration within educational practices. Group discussions, collaborative projects, and experiential learning activities encourage students to see the interconnectedness of religion and science. For example, students can work on projects that address real-world problems, such as climate change, while considering both scientific solutions and ethical dimensions derived from religious teachings.

An additional strategy involves using case-based learning to apply religious values to practical scientific issues. For instance, discussions on environmental conservation can be framed within the context of Quranic verses that emphasize stewardship and the responsibility of humans as guardians of the Earth (caliphs). This approach not only enhances understanding of environmental science but also fosters a sense of ethical responsibility among students.(Husna et al., 2020)

Moreover, schools and madrasahs can organize thematic days or weeks where the focus is on the integration of religion and science. Events like "Faith and Science Day" can include interactive sessions, exhibitions, and competitions that showcase student projects merging religious principles with scientific exploration. Such initiatives engage students creatively while reinforcing the importance of viewing science through a moral lens. (Rahmania & Tabroni, 2021)

Teachers can also incorporate technology to make the integration more dynamic. For example, virtual simulations of natural phenomena can be combined with Quranic verses explaining these occurrences, allowing students to visually and intellectually connect religious teachings with scientific realities. This approach makes abstract concepts more tangible and accessible, thereby enhancing both engagement and retention.(Kosim, 2020)

Finally, collaboration with local religious and scientific organizations can further strengthen the integration model. Partnerships with institutions like mosques, environmental agencies, or science centers can provide students with opportunities to participate in community projects that address real-world challenges. These

collaborations help students apply their integrated learning in meaningful ways, fostering a deeper connection between their academic pursuits and societal contributions.(Miftah, 2017)

Enhancing Social and Emotional Intelligence

The integration of religion and science education contributes significantly to the development of social and emotional intelligence. Understanding the relationships between these disciplines fosters inclusivity and respect for diverse perspectives. This holistic approach is particularly important in promoting a peaceful and harmonious society, as learners become more empathetic and socially responsible.

Moreover, the integration encourages learners to critically engage with contemporary challenges. By blending ethical principles with scientific knowledge, students are better equipped to address issues such as social inequality, environmental degradation, and technological ethics. For instance, discussing the ethical use of artificial intelligence through the lens of Islamic values can help students navigate complex moral dilemmas.

Additionally, the incorporation of religious teachings into science education helps students develop a sense of global citizenship. For example, the concept of rahmatan lil 'alamin (mercy for all creations) emphasizes the importance of caring for all beings, which can be aligned with scientific concepts of biodiversity conservation. This approach cultivates a mindset of compassion and responsibility toward societal and environmental issues.(Rifa'i & Choli, 2020)

Research indicates that integrated education enhances emotional intelligence by encouraging students to reflect on their actions and their impact on others. Lessons that combine religious values with topics such as environmental science or social ethics encourage learners to empathize with different viewpoints and work collaboratively toward common goals.(Kosim, 2020) For instance, group projects on sustainable living can incorporate Islamic principles of balance and moderation, teaching students to address modern challenges ethically and pragmatically.

Furthermore, social-emotional skills such as resilience, adaptability, and teamwork are strengthened through this integration. When learners are exposed to ethical discussions within a scientific framework, they gain the tools to navigate disagreements and find solutions that align with both rational and moral principles. This balance is particularly relevant in addressing global challenges like climate change, where ethical considerations play a crucial role in shaping sustainable practices.(Rahmania & Tabroni, 2021)

Finally, the integration of religion and science education instills in learners a sense of purpose and accountability. By understanding their role as caliphs (stewards) of the Earth, students develop a moral obligation to contribute positively to their communities and the environment. This sense of accountability not only enriches their social and emotional intelligence but also inspires them to become proactive agents of change in society. (Miftah, 2017)

Teacher Training and Technological Support

A key factor in the successful implementation of this integration is the professional development of educators. Schools and madrasahs must provide training programs that enhance teachers' competencies in merging religious and scientific

content effectively. Teachers who are well-versed in this integrated approach can inspire students to think holistically and see the value in combining these fields.

Technology also offers significant opportunities to enrich this integration. Online learning platforms, interactive simulations, and multimedia resources can vividly illustrate the synergy between religion and science. For example, virtual reality simulations can depict the wonders of the universe alongside Quranic interpretations, making learning both engaging and profound. These tools also support flexible and adaptive learning environments, enabling broader access to quality education.

In addition to training in pedagogy, educators must be equipped with digital literacy skills to effectively utilize technology in their teaching. Workshops and certification programs can help teachers master tools such as augmented reality, learning management systems, and data analytics to personalize and enhance their instruction. For instance, using a platform to analyze student performance data can help teachers tailor lessons that integrate religious values with scientific concepts, improving learning outcomes.(Kosim, 2020)

Collaboration between educators and technologists is another critical aspect of this integration. Joint efforts can lead to the development of specialized resources, such as e-books or interactive apps, that align with an integrated curriculum. For example, an app that combines Quranic verses on environmental stewardship with lessons on renewable energy can make learning more interactive and accessible for students.(Rahmania & Tabroni, 2021) Such innovations also support inclusivity by catering to diverse learning needs and preferences.

Furthermore, peer-learning programs among teachers can foster the sharing of best practices in integrating religious and scientific education. Educators can benefit from observing and adapting strategies that have been successfully implemented in other schools or madrasahs. For example, a teacher in one institution may demonstrate how to use collaborative projects to teach concepts like conservation from both Islamic and ecological perspectives, inspiring others to adopt similar methods. (Miftah, 2017)

Technology also bridges geographical and logistical barriers, enabling educators to access global resources and connect with experts in the field. Virtual conferences, webinars, and online forums can facilitate the exchange of ideas and provide ongoing professional support. Teachers in remote areas, for example, can gain access to training and materials that enhance their ability to integrate religious and scientific education, ensuring that this approach reaches diverse educational settings.(Rifa'i & Choli, 2020)

Lastly, the success of teacher training and technological integration depends on institutional support. Schools and madrasahs must invest in infrastructure, such as high-speed internet and multimedia devices, to create an environment conducive to integrated learning. Moreover, school leaders must prioritize professional development and allocate resources to ensure that educators are adequately prepared to implement this model effectively.(Husna et al., 2020) This comprehensive approach not only equips teachers with the tools they need but also fosters a culture of innovation and collaboration in education.

Global Relevance and Character Building

In a globalized world, the integration of religious and science education aligns with 21st-century educational goals that prioritize creativity, collaboration, and critical thinking. Learners exposed to this integrated approach demonstrate greater innovation

and adaptability in addressing societal challenges. For instance, they are more likely to propose sustainable solutions to environmental problems by considering both scientific data and ethical frameworks.

Ultimately, this integration transcends traditional teaching objectives by shaping learners' mindsets. Students are taught to perceive faith and science not as separate domains but as complementary aspects of understanding life and contributing to society. This perspective fosters individuals who are both knowledgeable and morally grounded, capable of making meaningful contributions to their communities and the broader world.

This integrated approach also addresses the global demand for educational systems that produce socially responsible leaders. In the context of environmental sustainability, for example, religious values can guide ethical decision-making, while scientific education equips students with the technical skills to develop innovative solutions.(Rahmania & Tabroni, 2021) This dual emphasis ensures that future leaders are not only capable of tackling complex global issues but also committed to doing so in ways that uphold ethical principles.

Furthermore, integrated education promotes intercultural understanding, an essential skill in an increasingly interconnected world. By teaching students to appreciate the ethical dimensions of scientific advancements, this approach fosters inclusivity and respect for diverse worldviews. For instance, discussing the intersection of Islamic teachings and global scientific efforts in combating climate change can prepare students to collaborate across cultural and disciplinary boundaries.(Rifa'i & Choli, 2020)

The integration also aligns with the global focus on sustainable development goals (SDGs). The inclusion of ethical considerations from religious teachings in science curricula supports SDG 4, which emphasizes inclusive and equitable quality education, and SDG 13, which focuses on climate action.(Kosim, 2020) Through this approach, students are encouraged to apply their knowledge to address pressing global challenges in a balanced and sustainable manner.

Additionally, students exposed to this integrated model are better equipped to navigate the ethical dilemmas posed by technological advancements. Discussions on artificial intelligence, for instance, can include both scientific implications and ethical considerations derived from Islamic principles. This prepares learners to engage critically and ethically with disruptive innovations, ensuring that they contribute positively to the advancement of society. (Husna et al., 2020)

Finally, the integration of religious and scientific education creates a more balanced understanding of human purpose and societal roles. By emphasizing the complementary nature of faith and reason, this approach nurtures individuals who are not only intellectually competent but also spiritually aware. This balance helps students develop a comprehensive worldview, enabling them to make meaningful contributions to their communities and the global society. (Miftah, 2017)

Holistic Character Development

The integration of religious and scientific education nurtures a balanced development of cognitive, emotional, and spiritual capacities in learners. By combining the logical rigor of science with the ethical guidance of religion, this approach fosters well-rounded individuals who can address modern challenges with empathy and

rationality. For instance, teaching about energy conservation through both ecological principles and Islamic teachings on avoiding waste (israf) encourages students to adopt sustainable practices in their daily lives.(Rahmania & Tabroni, 2021) This dual focus instills a sense of accountability and purpose in learners, enriching their overall character.

Additionally, this integration encourages learners to reflect on their roles and responsibilities within a larger societal and global context. For example, addressing the ethical implications of resource depletion through Quranic verses and scientific data allows students to understand their responsibility as stewards (caliphs) of the Earth. This reinforces values like sustainability and equity, helping learners develop a comprehensive understanding of their impact on the environment and society.(Kosim, 2020)

Through this holistic development, students are equipped to build empathy and cultivate resilience in the face of societal challenges. When learners understand both the moral and practical dimensions of issues like climate change or public health crises, they are better positioned to develop innovative yet ethical solutions. This is particularly relevant in fostering emotional intelligence, as students are taught to consider the perspectives of various stakeholders while addressing such issues. (Husna et al., 2020)

Moreover, incorporating religious teachings into scientific education allows students to see their academic pursuits as meaningful and purposeful. For instance, connecting the scientific study of biodiversity with the Quranic emphasis on the balance of creation instills a sense of wonder and appreciation for the natural world. This approach not only deepens students' academic engagement but also inspires a lifelong commitment to both learning and ethical living.(Rifa'i & Choli, 2020)

Finally, holistic character development achieved through this integration prepares learners for leadership roles in a globalized world. By combining critical thinking, ethical reasoning, and spiritual awareness, students emerge as individuals capable of navigating complex issues with integrity and vision. This well-rounded approach ensures that learners are not only competent professionals but also compassionate leaders who prioritize the greater good in their decision-making processes.(Miftah, 2017)

Relevance in Technological Advancements

As technology increasingly shapes human lives, the ethical dimension becomes critical in guiding its development and application. The integration of religious and scientific education equips students with the moral framework needed to navigate ethical dilemmas in areas such as artificial intelligence (AI) and genetic engineering. Discussions on these topics, anchored in religious values like justice (adl) and stewardship, enable learners to make informed and ethical decisions. For example, Quranic teachings on fairness can serve as a foundation for exploring the equitable use of AI technologies.(Kosim, 2020)

In addition to ethical considerations, the integration encourages students to critically evaluate the societal impacts of emerging technologies. By exploring real-world applications of technologies such as biotechnology or autonomous systems, alongside Islamic teachings on responsibility and accountability, students develop a balanced perspective. For instance, discussions on cloning or genetic modification can incorporate Quranic views on the sanctity of life and the ethical limits of human

intervention in creation, helping learners navigate these controversial issues with wisdom and insight.(Rahmania & Tabroni, 2021)

Furthermore, this approach prepares students to become responsible innovators who prioritize humanity's welfare in their technological pursuits. Teaching ethical principles alongside technical knowledge instills a sense of duty to use advancements for the greater good. For example, Quranic injunctions against harm (dharar) can guide students in developing technologies that mitigate environmental risks or promote social equity, such as renewable energy solutions or inclusive digital tools. (Rifa'i & Choli, 2020)

The integration of religious values in scientific education also fosters adaptability in addressing unforeseen technological challenges. As students are trained to consider both moral and practical implications, they are better equipped to respond to disruptive innovations. For example, learners can analyze the ethical ramifications of big data collection and AI surveillance, guided by principles such as privacy and respect for human dignity outlined in Islamic ethics. This dual perspective ensures that future technology leaders can advocate for and implement solutions that align with societal values.(Husna et al., 2020)

Finally, the integration positions students to contribute to global dialogues on ethical technology use. By combining scientific expertise with a robust ethical foundation, they can engage in cross-cultural and interdisciplinary collaborations aimed at addressing pressing technological concerns. For instance, initiatives to establish international standards for AI use could benefit from contributions rooted in ethical principles derived from religious teachings, showcasing the value of integrating faith and science in global innovation. (Miftah, 2017)

Enhanced Community Engagement

Integrated education also fosters stronger connections between learners and their communities. By emphasizing societal responsibilities, students are encouraged to apply their knowledge to real-world issues, such as environmental conservation or social justice. Collaborative projects that involve local communities like planting trees in deforested areas or creating awareness campaigns on renewable energy allow students to practice the principles they learn in classrooms. This experiential approach reinforces their understanding of the interdependence between ethical and scientific perspectives (Miftah, 2017).

Additionally, this approach helps build a sense of civic responsibility among students. By integrating religious teachings on altruism and social justice with scientific methods for problem-solving, learners are motivated to address local challenges effectively. For instance, projects addressing water scarcity in rural areas can involve the scientific design of water filtration systems alongside Islamic principles of equitable resource distribution. Such initiatives demonstrate how integrated education can directly benefit communities while enriching the learning process (Rahmania & Tabroni, 2021).

Integrated education also encourages partnerships between schools and local organizations, such as environmental agencies, mosques, or social welfare groups. These collaborations provide opportunities for students to participate in larger community initiatives, such as disaster response programs or urban sustainability projects. By involving students in these activities, schools and madrasahs help bridge

the gap between classroom learning and practical community engagement, reinforcing the real-world relevance of their education (Rifa'i & Choli, 2020).

Furthermore, these community-based projects enhance the development of empathy and teamwork skills among students. Collaborative efforts to tackle shared challenges foster a sense of unity and mutual respect among participants. For example, working on a waste management program within their community can teach students to value diverse perspectives while addressing a common issue. This hands-on approach ensures that learners internalize the ethical and scientific principles they are taught, making them active contributors to societal well-being (Kosim, 2020).

Finally, the emphasis on community engagement through integrated education inspires students to view themselves as agents of change. By applying their knowledge and skills to address societal needs, they develop a deeper sense of purpose and accountability. This mindset not only benefits the communities they serve but also prepares students for lifelong roles as responsible citizens and ethical leaders in their fields (Husna et al., 2020).

D. CONCLUSION

The integration of religious and science education offers a transformative approach to character building and holistic education. By combining the ethical grounding provided by religious teachings with the critical thinking and problem-solving skills fostered by science, this approach addresses the limitations of traditional educational models. Learners are not only prepared academically but also equipped to navigate complex societal challenges with a strong moral compass.

In practice, the integration can be implemented through innovative curricula, interdisciplinary teaching strategies, and the effective use of technology. Schools and madrasahs can enhance teacher training programs to equip educators with the skills necessary to merge these disciplines effectively. Technology, such as online platforms and interactive simulations, plays a vital role in making learning engaging and accessible, especially in diverse educational contexts.

Globally, this integrated model aligns with the objectives of 21st-century education, fostering creativity, collaboration, and critical thinking. It also supports sustainable development by encouraging students to address global issues, such as climate change and social inequality, with a balanced perspective that combines ethical considerations and scientific knowledge. Learners exposed to this model are better equipped to become innovative and socially responsible leaders who contribute positively to their communities and the broader world.

Ultimately, the integration of religious and science education transcends traditional teaching objectives by shaping learners' mindsets and fostering a comprehensive understanding of life. It prepares students to view faith and science not as separate entities but as complementary tools for understanding the world and contributing meaningfully to society. This holistic approach ensures that future generations are intellectually capable, morally grounded, and committed to creating a better, more harmonious world.

REFERENCES

Hasbullah, Juhji, & Maksum, A. (2019). Strategi Belajar Mengajar dalam Upaya Peningkatan Hasil Belajar Pendidikan Agama Islam. *Edureligia: Jurnal Pendidikan Agama Islam*, 3(1).

Herni, Z. (2018). Pendidikan Agama Islam Pada Paud (Penerapan Pembelajaran Sains Pada Paud). *Jurnal Dudeena*, 11(1).

Husna, A., Hasan, M., Mustafa, M., Syukri, M., & Yusrizal, Y. (2020). Pengembangan Modul Fisika Berbasis Integrasi Islam-Sains pada Materi Gerak Lurus untuk Meningkatkan Hasil Belajar Peserta Didik. *Jurnal Pendidikan Sains Indonesia*, 8(1). https://doi.org/10.24815/jpsi.v8i1.15539

Kosim, M. (2020). Penguatan Pendidikan Karakter di Era Industri 4.0: Optimalisasi Pendidikan Agama Islam di Sekolah. *TADRIS: Jurnal Pendidikan Islam*, 15(1). https://doi.org/10.19105/tjpi.v15i1.2416

Mansir, F. (2021). Aktualisasi Pendidikan Agama dan Sains dalam Character Building Peserta Didik di Sekolah dan Madrasah. *J-PAI: Jurnal Pendidikan Agama Islam*, 7(2). https://doi.org/10.18860/jpai.v7i2.11704

Miftah, M. (2017). Model Integrasi Sains dan Agama dalam Pendidikan Nasional. *Jurnal Penelitian*, 2017(1).

Rahmania, S., & Tabroni, I. (2021). Relevansi pendidikan agama islam dalam membangun karakter bangsa di era digital. *Lebah*, 14(2).

Rifa'i, A., & Choli, I. (2020). Relevansi Pendidikan Agama Islam Terintegrasi Dalam Membangun Karakter Bangsa Di Era Digital 4.0. *El-Arbah: Jurnal Ekonomi, Bisnis Dan Perbankan Syariah*, 4(01). https://doi.org/10.34005/elarbah.v4i01.1071

Siregar, M., Zahra, D. N., & Bujuri, D. A. (2020). Integrasi Materi Pendidikan Agama Islam Dalam Ilmu-Ilmu Rasional Di Sekolah Menengah Atas Islam Terpadu. *Al-Tadzkiyyah: Jurnal Pendidikan Islam*, 10(2). https://doi.org/10.24042/atjpi.v10i2.4847

Sugiyono. (2020). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D* (Bandung). Alfabeta, Cv.