JOURNAL
ISLAMIC EDUCATION

Edu Global: Journal of Islamic Education is an academic journal dedicated to the study of Islamic education across various dimensions, including theory, practice, innovation, and development at both local and global levels. The journal aims to serve as a scholarly platform for researchers, academics, and practitioners in Islamic education to publish research findings, conceptual articles, and in-depth literature reviews

Volume. 6. Nomor. 1 Tahun 2025

Edu Global
Jurnal Pendidikan Islam

Edu Global: Journal of Islamic Education is an academic journal dedicated to the study of Islamic education in various dimensions, including theory, practice, innovation, and development at the local and global levels. The journal aims to be a scientific platform for researchers, academics, and practitioners in Islamic education to publish research findings, conceptual articles, and in-depth literature reviews. Published twice a year, Edu Global is committed to upholding high scientific standards through a rigorous and transparent peer-review process conducted by experts in the field of Islamic education. The journal aspires to make meaningful contributions to enrich knowledge and encourage constructive dialog in advancing Islamic education in line with contemporary challenges.

The journal accepts submissions from authors with diverse backgrounds, both national and international, focusing on topics such as, Islamic education methodology, Integration of Islamic values in the curriculum, Technology in Islamic learning, Dynamics of Islamic education in the modern era, Inclusive education based on Islamic values, and Manuscript studies.

CONTENTS

NOTE FROM THE EDITORS

It is with profound gratitude to Allah SWT that we present the printed compilation of *Edu Global: Journal of Islamic Education*, Volume 6, Number 1 (June 2025). This edition brings together nine rigorously peer-reviewed scholarly contributions that collectively illuminate the dynamic intersections of Islamic pedagogy, contemporary neuroscience, character formation, historical reclamation, and inclusive educational practice.

At the heart of this volume lies a unifying commitment: to advance a vision of Islamic education that is intellectually robust, ethically grounded, and responsive to the complexities of the 21st century. The opening cluster of articles harnesses insights from educational neuroscience to reimagine learning environments. Drawing on neuroplasticity, dopamine-driven motivation, and emotion-regulated cognition, these studies advocate for pedagogical designs that align with the brain's natural architecture—thereby fostering intrinsic motivation, reducing stress, and enhancing engagement through immersive technologies and gamified strategies.

Complementing this neuroscientific lens, several empirical studies foreground the human dimension of education. One compelling investigation from SMP Negeri 1 Angkola Barat demonstrates how deliberate, faith-sensitive practices—ranging from interreligious celebrations to mixed-faith extracurriculars—can cultivate deep-seated religious tolerance and social harmony in pluralistic settings. Another set of studies highlights the pivotal role of teachers as moral and emotional anchors: whether through soft skills that support students' mental health, active classroom participation that rekindles motivation, or the integration of Islamic values into scouting activities that shape noble character.

Critically, this volume also undertakes a historiographical intervention. Through a feminist deconstructive reading of classical Islamic sources, one article powerfully reclaims the intellectual and institutional legacies of Aisha bint Abu Bakr and Fatima al-Fihri—figures whose contributions to epistemology and higher education have long been marginalized by patriarchal historiography. This recentering of women as transformative agents not only corrects historical erasure but also enriches contemporary discourses on gender equity within Islamic thought.

Further reinforcing the journal's commitment to pedagogical innovation, an experimental study provides empirical validation for active learning models—specifically Discovery Learning and Numbered Heads Together—showing their significant impact on student achievement in Islamic Religious Education and Character. Finally, the volume concludes with a reflective return to the classical: a thoughtful re-examination of the Nizhamiyyah Madrasah's integrative curriculum, which seamlessly wove together *al-'ulūm al-naqliyyah* (revealed sciences) and *al-'ulūm al-'aqliyyah* (rational sciences). This historical model offers a compelling blueprint for overcoming the persistent dualism between religious and secular knowledge in contemporary Indonesian Islamic education.

Together, these articles articulate a holistic educational paradigm—one that nurtures the intellect, fortifies the soul, cultivates empathy, and bridges tradition with modernity. We trust that this printed edition will serve not only as a scholarly archive but also as a catalyst for dialogue, reform, and inspiration among educators, researchers, policymakers, and all those committed to the flourishing of Islamic education in a global age.

We extend our deepest appreciation to the authors, peer reviewers, editorial board, and staff whose dedication has made this publication possible. May this work contribute meaningfully to the advancement of knowledge, the cultivation of virtue, and the betterment of society.

Respectfully,

The Editorial Board
Edu Global: Journal of Islamic Education
State Islamic Institute (STAIN) Mandailing Natal
July 2025

Research Article

The Role of Neuroscience in Enhancing Learning Motivation

Raja Ritonga,[1] **Ahmad Lahmi,**[2] **Rosniati Hakim ,**[3] **Dasrizal Dahlan.**[4]

[1, 2, 3, 4] Universitas Muhammadiyah Sumatera Barat

Korespondensi
Raja Ritonga
Universitas Muhammadiyah Sumatera Barat

✉
babahsyimanel@gmail.com

ABSTRAK: Motivasi pembelajaran merupakan salah satu faktor kunci dalam mencapai keberhasilan pendidikan. Neurosains, yang mempelajari cara kerja otak, memberikan pemahaman lebih dalam tentang mekanisme yang memengaruhi motivasi individu dalam belajar. Pengetahuan ini membuka peluang untuk merancang metode pembelajaran yang lebih efektif dalam meningkatkan motivasi siswa. Penelitian ini bertujuan untuk mengeksplorasi peran neurosains dalam meningkatkan motivasi pembelajaran melalui pendekatan berbasis mekanisme otak dan faktor neurobiologis yang relevan. Penelitian ini menggunakan pendekatan kajian literature. Data diperoleh dari berbagai jurnal ilmiah, artikel, dan buku yang relevan dengan topik ini. Selanjutnya, dilakukan analisis secara kualitatif terkait studi terkini yang mengkaji hubungan antara neurosains dan motivasi pembelajaran. Hasil penelitian menunjukkan bahwa pemahaman tentang pengaruh dopamin, stres, dan neuroplasticity dalam otak dapat membantu merancang lingkungan pembelajaran yang mendukung motivasi siswa. Penerapan teknik seperti neuromodulasi dan gamifikasi terbukti dapat meningkatkan keterlibatan siswa secara signifikan, yang berdampak langsung pada motivasi intrinsik dan hasil belajar.

ABSTRACT: Learning motivation is a key factor in achieving educational success. Neuroscience, which studies the workings of the brain, provides a deeper understanding of the mechanisms that influence individual motivation in learning. This knowledge opens opportunities to design more effective learning methods to enhance student motivation. This study aims to explore the role of neuroscience in improving learning motivation through a brain mechanism-based approach and relevant neurobiological factors. This research uses a literature review approach. Data were obtained from various scientific journals, articles, and books relevant to this topic. A qualitative analysis was then conducted regarding recent studies examining the relationship between neuroscience and learning motivation. The findings indicate that understanding the impact of dopamine, stress, and neuroplasticity in the brain can help design learning environments that support student motivation. The application of techniques such as neuromodulation and gamification has proven to significantly increase student engagement, directly impacting intrinsic motivation and learning outcomes.

INTRODUCTION

Education is a crucial factor in shaping knowledgeable and skilled individuals [1], [2]. One of the main components influencing the success of the learning process is student motivation [3], [4]. High motivation can encourage students to be more active and dedicated in their learning activities, while low motivation often becomes a major barrier to achieving optimal learning outcomes [5], [6]. Therefore, understanding the factors that influence motivation is vital in improving the effectiveness of learning at various educational levels [7].

One important aspect that determines the effectiveness of education is student motivation to learn [8]. Motivation is an internal drive that encourages individuals to achieve goals, including in the context of learning [9]. Students with high motivation tend to be more active and successful in the learning process, while those with low motivation often struggle to achieve optimal results. Therefore, a deeper understanding of the factors that affect motivation is key to creating an effective learning environment [10], [11].

With the advancement of science, particularly in the field of neuroscience, we are beginning to understand more clearly how the brain plays a role in the learning process and motivation [12], [13]. Neuroscience studies the structure and function of the nervous system, including the brain, as well as how the brain responds to various stimuli and experiences [14]. Research in this field shows that neurobiological processes, such as neurotransmitter release, can affect the level of motivation and student engagement in learning. This opens up opportunities to design learning methods that are more in line with how the brain works, with the goal of enhancing student motivation [15], [16].

Neuroscience, as a branch of science studying the nervous system and brain, has made significant contributions to our understanding of how the brain functions in the context of learning [17], [18]. Research in neuroscience shows that both intrinsic and extrinsic motivation are strongly influenced by neurobiological processes occurring in the brain. For example, brain mechanisms related to dopamine, a neurotransmitter involved in the reward

system, can affect the level of engagement and the desire of students to learn [19].

Moreover, an understanding of neuroplasticity—the brain's ability to adapt and change through experience—also opens opportunities to design more effective learning approaches [10]. Learning that stimulates the brain to form and strengthen neural connections can enhance students' cognitive and emotional skills, which in turn impacts their motivation. Thus, neuroscience not only provides theoretical insights but also practical applications that can be implemented in learning design [20], [21].

One important aspect of neuroscience that is directly related to motivation is the brain's reward system [17]. Neurotransmitters such as dopamine play a role in regulating feelings of satisfaction and reward that arise when someone achieves something they desire [22]. Understanding how the brain responds to rewards and challenges can be used to create more engaging and motivating learning experiences [23]. Additionally, the concept of neuroplasticity—the brain's ability to adapt and form new connections—also becomes crucial in the context of learning, as it can stimulate the brain to develop better [24].

With a deeper understanding of brain mechanisms and neurobiological factors that influence motivation, we can develop more effective learning approaches [25]. A neuroscience-based approach allows educators to design methods that not only enhance material understanding but also keep student motivation high [26]. Therefore, this research is important to further explore how the application of neuroscience in learning can contribute to increasing student motivation and achieving better learning outcomes.

The main objective of this research is to explore how the application of neuroscience can enhance learning motivation. By understanding the brain mechanisms related to motivation, as well as the neurobiological factors influencing it, we can design more targeted learning methods. This research is expected to provide insights into ways that can be applied to create more enjoyable and motivating learning experiences, based on proven neuroscience principles.

METHOD

This research uses a literature review approach by analyzing various relevant studies to explore the role of neuroscience in enhancing learning motivation. The literature review is chosen as the primary method because it allows the researcher to collect and analyze findings from previous research related to brain mechanisms, neurobiological factors, and their application in the educational context. This process will provide a comprehensive overview of how neuroscience can be used to design effective learning strategies to improve student motivation.

The data sources used in this study include scientific journals, articles, books, and other publications related to neuroscience and learning motivation. The researcher selects data sources based on relevance, research quality, and the impact of the findings on understanding the relationship between neuroscience and motivation in learning. These sources will then be analyzed systematically to identify patterns, key findings, and practical applications of neuroscience in enhancing learning motivation.

Data analysis is carried out using a qualitative approach, focusing on a deep understanding of existing concepts, theories, and research results. The researcher will organize the information obtained to create a mapping of the relationship between brain mechanisms, neurobiological factors, and student motivation. This study will also discuss various methods that have been applied in educational practices, such as the use of gamification, neuromodulation techniques, and the creation of learning environments that support student motivation based on neuroscience principles.

RESULTS

Brain Mechanisms that Affect Learning Motivation

Motivation is an internal drive that influences an individual to take certain actions, pursue goals, and achieve desired outcomes [27]. In the context of psychology, motivation is divided into two main types: intrinsic motivation and extrinsic motivation [28]. Intrinsic motivation comes from within the individual, where a person feels driven to do something for personal satisfaction or interest in the activity itself. For example, someone who studies

because they want to understand a particular topic better. On the other hand, extrinsic motivation is influenced by external factors, such as rewards, recognition, or acknowledgment gained from the results of an activity. For instance, a student who studies to get good grades or receive rewards from their parents [29].

Motivation plays a very important role in various aspects of life, including in the context of education. Motivated students tend to be more focused, have a strong desire to learn, and can overcome challenges that arise during the learning process. Conversely, a lack of motivation can lead students to feel disengaged, lazy, or indifferent about their learning progress. Therefore, understanding and managing motivation is crucial to support students' academic success and psychological well-being. Various factors, such as personal goals, social support, and positive learning experiences, can affect a person's motivation to achieve their goals [30].

Furthermore, motivation in learning is not only influenced by external factors such as rewards or personal goals, but also by several mechanisms that occur within the brain [31]. Neuroscience has identified a number of brain processes that directly play a role in motivating individuals to learn. Understanding these mechanisms is crucial for designing effective learning strategies that can enhance student motivation. Some brain mechanisms that influence learning motivation include the reward system, the role of dopamine, and the influence of emotions and attention [32].

One of the most well-known brain mechanisms related to motivation is the reward system, which involves the neurotransmitter dopamine [33]. Dopamine is a chemical compound that plays a role in regulating motivation, pleasure, and reward. When a person achieves a goal or receives positive feedback, dopamine is released, causing feelings of satisfaction and providing a drive to continue working toward that goal. In the context of learning, if students feel that their efforts will be rewarded or result in satisfying outcomes, they are more likely to continue trying and actively participate. Therefore, understanding how dopamine functions in the learning process can help educators design activities that trigger positive responses and rewards from students [34].

In addition to dopamine, neuroplasticity—the brain's ability to change and adapt over time—also plays a significant role in learning motivation. When a person engages in challenging activities, the brain forms new connections between nerve cells, which can enhance cognitive abilities and strengthen the motivation to keep learning [15]. Understanding neuroplasticity leads to learning approaches that encourage students to face challenges that can stimulate the brain to develop. By providing tasks or activities slightly outside of students' comfort zones but still within their capabilities, their brains can continue to grow, and students feel motivated to keep progressing [35].

The influence of emotions is also highly significant in affecting learning motivation. The limbic brain, which is responsible for regulating emotions, closely interacts with the cognitive system in influencing how students respond to information and tasks presented [23]. When students feel anxious, stressed, or afraid of failure, the limbic system can hinder their ability to focus and learn effectively. On the other hand, positive and stress-free learning experiences can enhance students' emotional engagement, which in turn increases their motivation to learn. Therefore, creating a learning environment that supports students' emotional well-being is vital to encouraging their motivation [36].

Attention is also a key factor that influences how effectively information is processed and stored in the brain. The brain tends to be more motivated to focus on and remember things that are relevant and interesting [6]. In the context of learning, techniques that can enhance students' attention, such as using interactive technology or methods that stimulate curiosity, can increase the likelihood of students feeling engaged and motivated. Understanding how attention works in the brain helps educators create more engaging and challenging learning experiences, leading to increased intrinsic motivation among students [2].

Thus, the various brain mechanisms involved in learning motivation are interconnected and influence each other. By understanding how the brain responds to rewards, challenges, emotions, and attention, educators can design learning methods that not only enhance students' cognitive skills but also encourage them to remain motivated in their learning.

Neurobiological Factors that Affect Motivation

Motivation in learning is not only influenced by psychological or environmental factors but also by various neurobiological processes occurring in the brain [37]. Several neurobiological factors that play an important role in motivation include neurotransmitters, the nervous system, and hormones, all of which interact to regulate a person's feelings, behavior, and performance in learning [20]. One key factor influencing motivation is the brain's reward system, which works through the release of various neurotransmitters, including dopamine, serotonin, and endorphins. Understanding the role of these neurotransmitters is important because they help drive individuals to pursue goals or activities they consider valuable [21].

Dopamine is a very important neurotransmitter in the brain's reward system and plays a major role in motivation. When a person achieves a goal or receives positive feedback, dopamine is released in response to feelings of satisfaction and reward [38]. This process provides the drive to continue the activity that results in that sense of fulfillment. In the context of learning, dopamine plays a major role in enhancing intrinsic motivation, which is the motivation that comes from within to learn for personal satisfaction or the achievement of an intellectual goal. When students experience success or praise for their efforts, their brains release dopamine, which strengthens their desire to continue learning and achieve more [7].

In addition to dopamine, serotonin also plays a role in regulating motivation, particularly in relation to mood and feelings of well-being [39]. Serotonin is often referred to as the "happiness" neurotransmitter because it helps enhance positive feelings and stabilize emotions. Balanced serotonin levels can help students feel more motivated to engage in learning, as they are more likely to feel better and more satisfied with themselves. When serotonin levels drop, as in conditions of depression or stress, motivation can decrease, and an individual may feel little drive to learn or achieve their goals [40].

The influence of cortisol, a hormone released in response to stress, also affects motivation [41]. While moderate stress can enhance alertness and performance, excessively high cortisol levels can impair cognitive abilities and reduce motivation [12]. Prolonged stress can hinder the learning process, cause anxiety, and lower focus. This highlights the importance of maintaining hormonal balance in the body, especially in demanding learning environments. Therefore, creating a learning environment that reduces stress and provides emotional support can help students maintain this hormonal balance and enhance their motivation [42].

Neuroplasticity, or the brain's ability to change and adapt, is also an important factor influencing motivation [43]. When the brain encounters new challenges or information that requires cognitive processing, it forms new neural connections, which increases its capacity for learning and growth[44]. This process can strengthen motivation, as students who face challenges and successfully overcome cognitive barriers feel more confident and motivated to continue their efforts. Therefore, providing learning experiences that are challenging yet within the student's capabilities can stimulate neuroplasticity and increase their motivation to learn more [45].

Thus, neurobiological factors that affect motivation, such as neurotransmitters, hormones, and neuroplasticity, play a vital role in the learning process. Understanding how the brain responds to various stimuli and emotions can help educators create more effective learning experiences and motivate students. By creating environments that support the chemical balance of the brain and encourage challenging learning experiences, we can enhance students' motivation to reach their goals more optimally.

Application of Neuroscience Knowledge in Learning Design

The application of neuroscience knowledge in learning design can provide a more effective approach to enhance student motivation and overall learning outcomes [46]. One key concept that should be applied in learning design is the understanding of neuroplasticity, or the brain's ability to change and adapt [47]. By utilizing the principles of neuroplasticity, educators can design activities that are challenging yet achievable for students, thus stimulating the brain to form new connections [48]. Tasks that present the right level of challenge for students' abilities encourage the brain to develop, which in turn can enhance motivation and engagement in learning [49].

Additionally, a gamification-based approach, or the application of game elements in learning, can also be applied based on neuroscience knowledge of the brain's reward system. Gamification utilizes the same principles as the brain's reward system, triggered by dopamine. By adding elements such as competition, rewards, and instant feedback, students will feel more motivated to engage in learning [50]. The use of points, badges, or leveling up provides a boost for students to keep striving and feeling appreciated for their efforts. This creates a more enjoyable learning experience and triggers a sense of achievement, leading to increased intrinsic motivation [51].

The application of interactive technology is also an effective way to utilize neuroscience knowledge in learning design. Research shows that technology that stimulates various senses and provides instant feedback can increase student engagement in the learning process. For example, the use of educational apps involving visualization, audio, and interactivity not only captures students' attention but also stimulates the brain to actively process and understand the material more thoroughly. Proper use of technology can speed up information processing and make it easier for students to remember and apply the knowledge they have learned [52].

Stress management is also an important aspect of learning design based on neuroscience. Excessive stress can hinder the learning process by raising cortisol levels, which interfere with the brain's ability to store and process information. Therefore, creating a supportive, calm, and stress-free learning environment will help students learn better. Techniques such as mindfulness, relaxation, and wise time management can be applied in learning to help students stay focused and motivated without feeling overwhelmed by excessive pressure [53].

Finally, the application of neuroscience knowledge in learning design also involves strategies for providing effective feedback. Constructive feedback, when delivered in a supportive manner, can stimulate the release of dopamine in the brain, which enhances feelings of reward and motivates students to continue learning. Timely and specific feedback can also help students correct their mistakes in a more directed way, boosting their confidence and encouraging motivation to keep progressing. By utilizing an understanding of how the brain responds to feedback, educators can design more effective learning experiences and motivate students to achieve their learning goals.

Overall, the application of neuroscience knowledge in learning design has a significant impact on the effectiveness of education. By utilizing core brain principles such as neuroplasticity, the reward system, stress management, and the use of technology, learning can be tailored to enhance student motivation and engagement. Educators who understand how the brain works can create learning experiences that are more enjoyable, challenging, and beneficial for students' academic and personal development.

CONCLUSION

The application of neuroscience knowledge in learning design significantly contributes to improving motivation and the effectiveness of learning. By understanding the brain mechanisms involved in the motivation process, such as the reward system and neuroplasticity, educators can design activities that are more engaging and align with how the brain functions. Techniques like gamification, interactive technology, and stress management strategies can enhance student engagement and satisfaction during the learning process. Additionally, providing effective feedback plays an important role in strengthening intrinsic motivation and guiding students to continue developing. Neurobiological factors, such as the release of dopamine, serotonin, and the influence of cortisol, demonstrate the importance of maintaining the brain's chemical balance to support optimal learning motivation. Therefore, creating a learning environment that supports students' emotional and mental well-being is crucial for boosting their motivation. Strategies based on neuroscience not only enhance students' cognitive abilities but also encourage them to engage more deeply in the learning process.

Thus, an understanding of neuroscience can serve as a strong foundation for designing more effective learning approaches that align with students' brain needs. The application of neuroscience-based approaches allows educators to create learning experiences that are more enjoyable, motivating, and challenging,

which in turn will encourage students to achieve better learning outcomes.

REFERENCES

[1] R. Rivalina, "Pendekatan Neurosains Meningkatkan Ketrampilan Berpikir Tingkat Tinggi Siswa Pendidikan Dasar Di Abad 21," *Kwangsan J. Teknol. Pendidik.*, vol. 8, no. 1, p. 83, 2020, doi: 10.31800/jtp.kw.v8n1.p83--114.

[2] N. F. Harahap, D. Anjani, and N. Sabrina, "Analisis Artikel Metode Motivasi dan Fungsi Motivasi Belajar Siswa," *Indones. J. Intellect. Publ.*, vol. 1, no. 3, pp. 198–203, 2021, doi: 10.51577/ijipublication.v1i3.121.

[3] Teti Sumiati and Septi Gumiandari, "Pendekatan Neurosains Dalam Strategi Pembelajaranuntuk Siswa Slow Learner," *Risâlah, J. Pendidik. dan Stud. Islam*, vol. 8, no. 3, pp. 1050–1069, 2022, doi: 10.31943/jurnalrisalah.v8i3.326.

[4] Fadkhulil Imad Haikal Huda, "Pembentukan Karakter Religius Berbasis Neurosains: Konstruksi Upaya Guru dalam Pembelajaran Pendidikan Agama Islam," *J. Pendidik. Agama Islam Al-Thariqah*, vol. 7, no. 2, pp. 491–502, 2022, doi: 10.25299/al-thariqah.2022.vol7(2).11138.

[5] N. Nelly, *Strategi Pembelajaran Berbasis Motivasi*, vol. 2, no. 2. books.google.com, 2021. doi: 10.47530/edulead.v2i2.63.

[6] M. Ridha, "Teori Motivasi Mcclelland dan Implikasinya dalam Pembelajaran PAI," *Palapa*, vol. 8, no. 1, pp. 1–16, 2020, doi: 10.36088/palapa.v8i1.673.

[7] W. Fitriani, H. Haryanto, and S. E. Atmojo, "Motivasi Berprestasi dan Kemandirian Belajar Mahasiswa saat Pembelajaran Daring," *Jurnal Pendidikan: Teori, Penelitian, dan Pengembangan*, vol. 5, no. 6. academia.edu, p. 828, 2020. doi: 10.17977/jptpp.v5i6.13639.

[8] M. A. Musi and W. Winata, "Efektivitas Bermain Peran Untuk Pengembangan Bahasa Anak," *PEMBELAJAR: Jurnal Ilmu Pendidikan, Keguruan, dan Pembelajaran*, vol. 1, no. 2. researchgate.net, p. 93, 2017. doi: 10.26858/pembelajar.v1i2.4418.

[9] M. Kahfi, Y. Ratnawati, W. Setiawati, and A. Saepuloh, "Efektivitas Pembelajaran Kontekstual Dengan Menggunakan Media Audiovisual Dalam Meningkatkan Motivasi Dan Prestasi Siswa Pada Pembelajaran Ips Terpadu," *J. Ilm. Mandala Educ.*, vol. 7, no. 1, 2021, doi: 10.58258/jime.v7i1.1636.

[10] M. S. Amran, S. Rahman, and S. Surat, "Emosi Positif Pembelajaran Efektif: Daripada Perspektif Neurosains Ke Dalam Bilik Darjah," *Seminar Serantau Ke-VIII (2017)*. seminarserantau2017.wordpress ..., pp. 48–54, 2017. [Online]. Available: https://www.researchgate.net/profile/Harun_Baharudin/publication/319701213_STRATEGI_TERJEMAHAN_DALAM_PEMBELAJARAN_BAHASA_ARAB_DI_KALANGAN_PELAJAR_IPT/links/59ba1396aca27241618d9d3d/STRATEGI-TERJEMAHAN-DALAM-PEMBELAJARAN-BAHASA-ARAB-DI-KALANGAN-PELAJAR-IPT

[11] B. Y. Wahyuningsih and N. M. Y. Suranti, "Strategi Pembelajaran Efektif Bagi Siswa Slow Learner: Sebuah Kajian Literatur," *... Elem. ...*, 2023, [Online]. Available: https://www.journal.publication-center.com/index.php/ijece/article/view/1562

[12] Y. Budianti, "Peningkatan Motivasi Belajar Siswa Melalui Strategi Pengajaran Bervariasi," *Pedagog. J. Pendidik. Guru Sekol. Dasar*, vol. 1, no. 1, pp. 55–64, 2013, doi: 10.33558/pedagogik.v1i1.1221.

[13] S. Suyadi, S. Sadam, and M. Jailani, "Imajinasi Kreatif Perspektif Pembelajaran Pendidikan Islam Dalam Diskursus Ilmu Neurosains: Implikasinya Terhadap Perserta Didik di Sekolah," *J. AL-MUDARRIS*, vol. 4, no. 2, pp. 152–172, 2021, doi: 10.32478/al-mudarris.v4i2.625.

[14] A. Wathon, *Neurosains dalam pendidikan*, vol. XIV, no. 1. books.google.com, 2016. [Online]. Available: https://books.google.com/books?hl=en&lr=&id=GEPWEAAAQBAJ&oi=fnd&pg=PA3&dq=peran+neurosains&ots=yJYbpYzBNt&sig=j4Gwr54gaNsNc13vpyFqsCWwfAM

[15] R. Maulita, E. Suryana, and Abdurrahmansyah, "Neurosains Dalam Proses Belajar Dan Memori," *Inov. J. Penelit. Pendidikan, Agama, dan Kebud.*, vol. 8, no. 2, pp. 1–16, 2022, doi: 10.55148/inovatif.v8i2.264.

[16] N. Fajri, "Frekuensi Gelombang Otak Dalam Menangkap Ilmu Imajinasi Dan Realita (Berdasarkan Ontologi)," *J. Filsafat Indones.*, vol. 3, no. 2, pp. 40–47, 2020, doi: 10.23887/jfi.v3i2.22299.

[17] R. Musdalifah, *Pemrosesan dan Penyimpanan Informasi pada Otak Anak dalam Belajar: Short Term and Long Term Memory*, vol. 17, no. 2. ejurnal.iainpare.ac.id, 2020. doi: 10.35905/alishlah.v17i2.1163.

[18] A. Awhinarto and S. Suyadi, "Otak Karakter Dalam Pendidikan Islam: Analisis Kritis Pendidikan Karakter Islam Berbasis Neurosains," *J. Pendidik. Karakter*, vol. 10, no. 1, 2020, doi: 10.21831/jpk.v10i1.29693.

[19] T. Saras, *Dopamin Molekul Kesenangan Dan Kekuatan Motivasi*. books.google.com, 2023. [Online]. Available: https://books.google.co.id/books?id=Z_DSEAAAQBAJ&lpg=PA1&ots=GmMNfqO-xp&dq=peran neurotransmitter dalam pengaturan motivasi&lr&hl=id&pg=PP1#v=onepage&q&f=true

[20] N. Larasati, J. Situmorang, and H. Tambunan, "Pengembangan Media Pembelajaran Berbasis Cooperative Learning Untuk Mata Pelajaran Ilmu Pengetahuan Alam (Ipa)," *Jurnal Teknologi Informasi & Komunikasi Dalam Pendidikan*, vol. 6, no. 1. download.garuda.kemdikbud.go.id, p. 103, 2020. doi: 10.24114/jtikp.v6i1.16948.

[21] Roja Saputra, Dewi Purnama Sari, and Aida Rahmi Nasution, "Model Pembelajaran Berbasis Neurosains Problem Based Learning," *J. Int. Multidiscip. Res.*, vol. 2, no. 5, pp. 499–503, 2024, doi: 10.62504/jimr513.

[22] I. Nur Intishar, "Pengaruh Perkembangan Otak pada Kemampuan Kognitif dan Perilaku dari Masa Infansi hingga Dewasa: Tinjauan Terkini," *J. Sinestesia*, vol. 13, no. 2, pp. 1216–1223, 2023, [Online]. Available: https://sinestesia.pustaka.my.id/journal/article/view/480

[23] I. R. Yusron, "Otak Emosi dan Otak Sosial: Fondasi Perspektif Neurosains dalam Perkembangan Sosial dan Emosi," *Jurnal Psikologi*, vol. 1, no. May. academia.edu, pp. 1–10, 2019. [Online]. Available: https://www.academia.edu/download/56643289/Perkembangan_Sistem_Neurologis-Isman2018.pdf

[24] R. C. Ningrum, R. Arini, A. Nurwati, and S. M. Leksono, "Peranan Permainan Engklek Terhadap Kecerdasan Logika Matematika Siswa Sekolah Dasar," *Elementary School: Jurnal Pendidikan dan Pembelajaran ke-SD-an*, vol. 11, no. 1. es.upy.ac.id, pp. 152–160, 2024. [Online]. Available: https://es.upy.ac.id/index.php/es/article/download/4247/2592

[25] M. P. Sudewiputri and I. M. A. Dharma, "Model Pembelajaran Numbered Heads Together (NHT) Terhadap Motivasi dan Hasil Belajar IPA," *J. Pedagog. dan Pembelajaran*, vol. 4, no. 3, p. 427, 2021, doi: 10.23887/jp2.v4i2.38900.

[26] V. LUSIANA, "Penerapan Problem Based Learning Untuk Meningkatkan Motivasi Dan Hasil Belajar Siswa," *ACTION J. Inov. Penelit. Tindakan Kelas dan Sekol.*, vol. 2, no. 2, pp. 165–177, 2022, doi: 10.51878/action.v2i2.1198.

[27] Y. Yuswardi, "Pengaruh Kompetensi Dan Disiplin Kerja Terhadap Motivasi Dan Dampaknya Pada Kinerja Pemeriksa Forensik Puslabfor Bareskrim Polri," *Responsive*, vol. 2, no. 2, p. 59, 2019, doi: 10.24198/responsive.v2i2.23058.

[28] I. Kholid, "Motivasi Dalam Pembelajaran Bahasa Asing," *English Educ. J. Tadris Bhs. Ingg. IAIN Raden Intan*, vol. 10, no. 1, pp. 61–71, 2017, [Online]. Available: https://ejournal.radenintan.ac.id/index.php/ENGEDU/article/view/875

[29] A. B. Sembiring, D. S. Tanjung, and P. J. Silaban, "Pengaruh Model Pembelajaran Time Token terhadap Motivasi Belajar Siswa Sekolah Dasar pada Pembelajaran Tematik," *J. Basicedu*, vol. 5, no. 5, pp. 4076–4084, 2021, doi: 10.31004/basicedu.v5i5.1289.

[30] Y. Supriani, U. Ulfah, and O. Arifudin, "Upaya Meningkatkan Motivasi Peserta Didik Dalam Pembelajaran," *J. Al-Amar Ekon. Syariah, Perbank. Syariah, Agama Islam. Manaj. dan Pendidik.*, vol. 1, no. 1, pp. 1–10, 2020, [Online]. Available:

https://ojs-steialamar.org/index.php/JAA/article/view/90

[31] R. Fitri, "Metakognitif pada Proses Belajar Anak dalam Kajian Neurosains," *J. Pendidik. (Teori dan Prakt.*, vol. 2, no. 1, p. 56, 2017, doi: 10.26740/jp.v2n1.p56-64.

[32] F. Wahyudin, "PENERAPAN NEUROSCIENCE DALAM PENDIDIKAN (MENURUT BEBERAPA PANDANGAN)," *Pendas J. Ilm. Pendidik. Dasar*, 2024, [Online]. Available: https://journal.unpas.ac.id/index.php/pendas/article/view/21579

[33] R. Abdiyantoro, S. Sutarto, D. P. Sari, and A. R. Nasution, "Sistem Kerja Otak pada Neurosains dalam Upaya Meningkatkan Pembelajaran PAI di Era Society 5.0," *Indones. J. Innov. Multidisipliner Res.*, vol. 2, no. 2, pp. 1–10, 2024, doi: 10.31004/ijim.v2i2.75.

[34] R. Yakup and S. Suyadi, "Otak karakter: model pendidikan karakter berbasis neurosains," *Gema Wiralodra*, vol. 14, no. 1, pp. 228–236, 2023, doi: 10.31943/gw.v14i1.383.

[35] Y. Y. Supriatman, K. Kunci, S. Otak, and A.- Qur, "Sistem Kerja Otak Manusia dalam Pendekatan Psikologi dan Kajian Ilmu Al- Qur ' an Sistem Kerja Otak Manusia ...," *Rahmad J. Stud. Islam dan Ilmu Al ...*, vol. 2, no. 1, pp. 1–13, 2024, [Online]. Available: https://e-journal.stiqbima.ac.id/index.php/rahmad/article/view/11

[36] H. Wijaya, "Pendidikan Neurosains dan Implikasinya dalam Pendidikan Masa Kini," *Pendidikan Dasar*, vol. 2, no. 1. researchgate.net, pp. 1–19, 2018. [Online]. Available: https://repository.sttjaffray.ac.id/media/publications/269017-pendidikan-neurosains-dan-implikasinya-d-1d9de092.pdf

[37] T. Hafizah, D. P. Sari, A. R. Nasution, and S. Sutarto, "Neurosains Dan Hubungannya Dengan Multiple Intelligence," *J. Int. Multidiscip. Res.*, vol. 2, no. 5, pp. 545–553, 2024, [Online]. Available: https://journal.banjaresepacific.com/index.php/jimr/article/view/518

[38] J. A. Muzakki, "Pemikiran Al-Ghazali Tentang Ganjaran Dan Hukuman Dalam Pendidikan Islam," *AWLADY J. Pendidik. Anak*, vol. 3, no. 1, 2017, doi: 10.24235/awlady.v3i1.1253.

[39] E. Burhaein, "Aktivitas Permainan Tradisional Berbasis Neurosainslearning Sebagai Pendidikan Karakter Bagi Anak Tunalaras," *J. Sport. J. Penelit. Pembelajaran*, vol. 3, no. 1, p. 55, 2017, doi: 10.29407/js_unpgri.v3i1.580.

[40] M. Muslimin, "Terapi Tasawuf Sebagai Upaya Penanggulangan Stress, Depresi, Dan Kecemasan," *Ghaidan J. Bimbing. Konseling Islam dan Kemasyarakatan*, vol. 1, no. 1, pp. 1–25, 2018, doi: 10.19109/ghaidan.v1i1.2030.

[41] Ida Bagus Alit Arta Wiguna, "Neurosains Dalam Implimentasi Metode Hypnoteaching Pada Pembelajaran Anak Usia Dini," *Prosiding Semadi 5*. sim.ihdn.ac.id, pp. 15–29, 2021. [Online]. Available: https://ihdnpress.ihdn.ac.id/wp-content/uploads/2021/11/PROSIDING-SEMADI_5_final.pdf#page=55

[42] W. Damayanti, S. Sutarto, D. P. Sari, and A. R. Nasution, "Neurosains dalam Pemikiran Tokoh Al-Ghazali, Al-Farabi Dan Ibnu Sina," *Indones. J. Innov. Multidisipliner Res.*, vol. 2, no. 3, pp. 21–29, 2024, doi: 10.31004/ijim.v2i3.86.

[43] Z. N. Harahap, N. Azmi, W. Wariono, and F. Nasution, "Motivasi, Pengajaran dan Pembelajaran," *J. Educ.*, 2023, [Online]. Available: https://jonedu.org/index.php/joe/article/view/1732

[44] E. Sutrisna and S. Suyadi, "Akal Bertingkat Dalam Perspektif Ibnu Sina, Alquran, Dan Neurosains Serta Relevansinya Dengan Pendidikan Islam," *Paramurobi J. Pendidik. Agama Islam*, vol. 5, no. 2, pp. 36–48, 2022, doi: 10.32699/paramurobi.v5i2.3434.

[45] Susanto and I. R. Munfarohah, "Neurosains Dalam Mengembangkan Kecerdasan Intelektual," *Kordinat | Jurnal Komunikasi Antar Perguruan Tinggi Agama Islam*. pp. 331-, 2020. [Online]. Available: https://scholar.archive.org/work/iuyeza2l6bbyjmazg64krxgbo4/access/wayback/http://journal.uinjkt.ac.id/index.php/kordinat/article/download/19000/pdf

[46] V. D. A. Resti, S. R. N. Hodijah, and M. Vitasari, "Neuroscience Studies in Self Regulated Learning for Science Teacher Candidates through Optimizing the Learning Management System (LMS) with the SPADA Feature," *Bioeducation J.*, vol. 5, no. 2, pp. 56–67, 2021, doi: 10.24036/bioedu.v5i2.331.

[47] Lalu Abdurrahman Wahid, "Pengembangan Pembelajaran Pendidikan Agama Islam Berbasis Pengembangan Potensi Otak Menggunakan Teori Neurosciences," *Tarbiyatuna J. Pendidik. Islam*, vol. 15, no. 1, p. 164, 2022, [Online]. Available: https://ejournal.iaisyarifuddin.ac.id/index.php/tarbiyatuna/article/view/1446

[48] A. Said and D. R. Rahayu, "Revolusi Mengajar Berbasis Neurosains." Prenada Media, p. 293, 2017.

[49] M. M. Amal, "Peran Emosi Positif Dalam Pembelajaran Pendidikan Islam Perspektif Neurosains," *Prosiding University Research Colloquium*. 2024.

[50] K. Fajriani, L. Hidayah, D. D. Junistira, and N. Anggraeni, "Menjelajahi Perkembangan Fungsi Otak Anak Usia Dini: Pendampingan Di KB Pelita Hati Bakuan," *AMMA J. Pengabdi. Masy.*, vol. 3, no. 1, pp. 18–26, 2024, [Online]. Available: https://journal.mediapublikasi.id/index.php/amma/article/view/4018

[51] R. Ritonga, R. Harahap, and R. Lubis, "Pelatihan Metode Refleksi Bagi Guru Sekolah Penggerak Dalam Proses Pembelajaran," *SELAPARANG. J. Pengabdi. Masy. Berkemajuan*, vol. 6, no. 2, pp. 995–1002, 2022, [Online]. Available: http://journal.ummat.ac.id/index.php/jpmb/article/view/8666/4636

[52] Agus Setiyoko, "Penerapan Model Pembelajaran Berbasis Neurosains Dalam Pembentukan Karakter Berpikir Kreatif Dan Kerjasama," *J. Inspirasi*, vol. 2, no. July, pp. 1–23, 2018, [Online]. Available: https://ejournal.undaris.ac.id/index.php/inspirasi/article/view/51

[53] A. Rais, A. B. Handayani, and S. MPAI, "Pengembangan Kecerdasan Spiritual Dalam Pendidikan Islam Dengan Pendekatan Neurosains," *Muaddib Stud. Kependidikan dan Keislam.*, vol. 1, no. 2, p. 131, 2019, doi: 10.24269/muaddib.v1i2.1695.

Research Artide

Instilling Religious Tolerance Values at SMP Negeri 1 Angkola Barat, Tapanuli Selatan.

Fadli Nurul Ikhsan,[1] **Muhammad Yunan Harahap,**[2] **Akhiril Pane.**[3]

[1,2] Universitas Pembangunan Panca Budi, Medan, Indonesia

[3] Universitas Islam Negeri Syekh Ali Hasan Ahmad Addary, Indonesia

ABSTRAK: Penelitian ini mengkaji penanaman nilai-nilai toleransi beragama di SMP Negeri 1 Angkola Barat, Tapanuli Selatan, sebuah sekolah dengan 435 siswa (397 Muslim, 38 Kristen) yang mencerminkan keberagaman Indonesia. Menggunakan pendekatan kualitatif, data dikumpulkan melalui wawancara, observasi, dan dokumentasi untuk mengeksplorasi strategi sekolah dan dampaknya terhadap harmoni sosial. Temuan menunjukkan bahwa pembelajaran di kelas, perayaan hari besar seperti Maulid Nabi dan Paskah, serta ekstrakurikuler seperti pramuka dan seni memfasilitasi interaksi lintas agama yang inklusif. Guru, melalui diskusi naratif dan keteladanan, memperkuat nilai penghormatan dan empati. Program sekolah, dengan 80% keterlibatan kelompok campuran, menghasilkan iklim harmonis tanpa insiden intoleransi selama tiga tahun. Penelitian ini menegaskan peran pendidikan sebagai katalis kohesi sosial di konteks multikultural, menawarkan model untuk institusi lain. Keterbatasan pada satu sekolah menyarankan studi komparatif lebih lanjut. Temuan berkontribusi pada wacana pendidikan multikultural global, dengan implikasi untuk kebijakan pendidikan yang mempromosikan persatuan.

ABSTRACT:

This study investigates the instillation of religious tolerance values at SMP Negeri 1 Angkola Barat, Tapanuli Selatan, a school with 435 students (397 Muslims, 38 Christians), reflecting Indonesia's diverse cultural landscape. Employing a qualitative approach, data were collected through interviews, observations, and documentation to explore the school's strategies and their impact on social harmony. Findings reveal that classroom learning, celebrations of religious holidays such as Maulid Nabi and Easter, and extracurricular activities like scouting and arts foster inclusive cross-faith interactions. Teachers, through narrative discussions and role modeling, reinforce values of respect and empathy. School programs, with 80% participation in mixed-faith groups, have cultivated a harmonious environment, evidenced by zero incidents of intolerance over three years. This research underscores education's role as a catalyst for social cohesion in multicultural settings, offering a replicable model for other institutions. The limitation of focusing on a single school suggests the need for comparative studies. The findings contribute to global discourse on multicultural education, with implications for educational policies promoting unity.

INTRODUCTION

Indonesia, the world's fourth most populous nation, is a captivating mosaic of diversity. With over 300 ethnic groups, 700 regional languages, and six officially recognized religions, it serves as a unique social laboratory where harmony and conflict coexist. This diversity, as noted by Azyumardi Azra, is a double-edged sword: it enriches national identity but risks sparking tensions if not managed wisely [1]. In this context, religious tolerance emerges as a cornerstone for maintaining social cohesion amidst complex pluralism. Religious tolerance is not merely a passive acceptance of differences but an active commitment to respecting, understanding, and embracing diverse beliefs to foster peace and solidarity [2].

Amid global dynamics marked by rising religious polarization, education stands as a strategic arena for instilling tolerance values. Schools, as formative institutions for the younger generation, bear a moral responsibility to prepare students for life in diverse societies. According to Tamaeka, education that embeds religious tolerance not only shapes inclusive individuals but also strengthens social foundations to prevent interfaith conflicts [3]. In Indonesia, where intolerance manifests in forms ranging from subtle discrimination to overt violence, the role of schools in fostering mutual respect is increasingly critical. Data from the Setara Institute indicate a rise in religious intolerance cases over the past decade, with 60% involving youth as perpetrators or victims [4], [5].

SMP Negeri 1 Angkola Barat, located in Tapanuli Selatan, North Sumatra, exemplifies an educational institution operating within cultural and religious diversity. Tapanuli Selatan is known for its heterogeneous population, where Muslims and Christians coexist alongside ethnic groups such as Batak, Minang, and Javanese. With 435 students, predominantly Muslim (397) and a Christian minority (38), the school mirrors Indonesia's multicultural society in microcosm. This diversity positions SMP Negeri 1 Angkola Barat as an ideal setting to examine how religious tolerance values are instilled through formal and non-formal education. Moreover, it holds potential as a model for other institutions in fostering social harmony in similar contexts.

Instilling religious tolerance in schools aims not only to create a conducive learning environment but also to equip students with 21st-century social skills [6]. In an era of globalization, where cross-cultural interactions are intensifying, the ability to appreciate differences is an essential competency. Research by Djollong and Akbar demonstrates that religious education grounded in tolerance reduces intergroup prejudice and stereotypes while enhancing empathy and cooperation [7]. At SMP Negeri 1 Angkola Barat, this is realized through strategies spanning classroom learning, religious activities, and inclusive extracurriculars. These approaches are not only locally relevant but also carry global implications, as multiculturalism poses challenges in nations from Europe to Asia.

Theoretically, religious tolerance is rooted in universal values found across religious and philosophical traditions. In Islam, for instance, Surah Al-Hujurat (49:13) underscores that ethnic and religious differences are divinely ordained to encourage mutual recognition and respect. A hadith narrated by Bukhari and Muslim, states that the religion most beloved by Allah is one that is "upright and tolerant" [8]. These values align with humanitarian principles in other faiths, such as love in Christianity or ahimsa in Hinduism, all emphasizing social harmony. In education, Zulyadain (2018) advocates a holistic approach to instilling tolerance, integrating curriculum, teacher role modeling, and student interactions [9].

However, implementing religious tolerance in schools is not without challenges. A primary obstacle is resistance from certain cultural or religious norms that may perceive tolerance as a threat to identity [10]. Additionally, inadequate teacher training in managing multicultural classrooms can hinder effectiveness [11], [12]. In Tapanuli Selatan, these challenges are compounded by disparities in educational resources and varying levels of pluralism awareness among communities. Nevertheless, SMP Negeri 1 Angkola Barat demonstrates commitment to overcoming these hurdles through inclusive policies and programs designed to promote harmony.

This study aims to identify the strategies employed by SMP Negeri 1 Angkola Barat to instill religious tolerance values and evaluate their impact on student behavior and school climate. Using a qualitative approach, it draws on perspectives from the principal, religious teachers, and students through interviews, observations, and documentation. The key questions are: (1) How does the school integrate tolerance values into educational processes? (2) How do these strategies influence social interactions among students from diverse religious backgrounds? (3) What lessons can be drawn for other educational institutions in multicultural contexts?

The study's relevance extends beyond the local context, contributing to global discourse on multicultural education. In countries like the United Kingdom, Australia, and Malaysia, tolerance education is a priority to address social tensions arising from migration and globalization. Thus, findings from SMP Negeri 1 Angkola Barat offer valuable insights into education's role as a catalyst for social harmony. Additionally, the study aligns with Indonesia's national agenda, as outlined in the National Medium-Term Development Plan (RPJMN) 2020–2024, which emphasizes character education to strengthen national unity.

Practically, this research seeks to provide guidance for educators and policymakers in designing inclusive educational programs. By understanding best practices from SMP Negeri 1 Angkola Barat, other schools can adopt similar strategies to create learning environments that embrace diversity. Furthermore, it highlights teachers' roles as agents of change, shaping a generation that is not only academically proficient but also socially wise through their teaching and example.

METHOD

This study employs a descriptive qualitative approach to gain an in-depth understanding of the strategies for instilling religious tolerance values at SMP Negeri 1 Angkola Barat, Tapanuli Selatan. Conducted on December 3, 2024, at Jl. Sibolga Km.15, Sitinjak Village, the research focused on interactions among students, teachers, and the school environment [13]. A qualitative approach was selected to capture the rich social nuances and cultural context inherent in tolerance practices.

Participants included primary data sources (the principal, Islamic and Christian religious teachers, and six students—three Muslims and three Christians) and secondary sources (other teachers and educational staff). The school comprises 435 students, with 397 Muslims and 38 Christians, reflecting a representative religious diversity. Participants were selected purposively to ensure data relevance.

Data were collected using three techniques: (1) semi-structured interviews with the principal, teachers, and students to explore perceptions and practices of tolerance [14]; (2) observations of classroom activities, religious events, and extracurriculars to examine student interactions [15]; and (3) documentation, including school records and reports on tolerance programs. Data analysis proceeded in three stages: data reduction to filter relevant information, data presentation in narrative and tabular forms, and conclusion drawing with triangulation to verify findings [16].

Data validity was ensured through source triangulation (comparing data from multiple informants), member checking (validating findings with participants), and researcher reflexivity to maintain objectivity. This approach guarantees credible and trustworthy findings, providing a comprehensive depiction of the instillation of religious tolerance in the school.

RESULTS
Dynamics of Student Interactions in Inclusive Activities

This study examines the dynamics of interactions among students from diverse religious backgrounds at SMP Negeri 1 Angkola Barat, Tapanuli Selatan, as an indicator of the successful instillation of religious tolerance values. With a student population of 435, comprising 397 Muslims (91.3%) and 38 Christians (8.7%), the school reflects the religious diversity characteristic of Indonesia's multicultural regions. Data collected through observations, semi-structured interviews, and school documentation demonstrate that inclusive activities, such as extracurriculars and religious celebrations, serve as effective platforms for fostering cross-faith collaboration, strengthening social cohesion, and reducing potential intergroup prejudice. This section delineates empirical findings on how student interactions in these activities reflect tolerance values, focusing on spontaneous, structured, and school-supported interactions.

Observations conducted on December 3, 2024, across various school activities revealed harmonious interaction patterns between Muslim and Christian students. In the scouting extracurricular, for instance, students from both faiths collaborated on group tasks, such as setting up tents and preparing campfires. Observations noted that Christian students, such as Kevin Ritonga, actively assumed leadership roles in predominantly Muslim groups, showing no signs of segregation or tension. Similarly, in the arts extracurricular, a local-themed drama performance became a compelling arena for collaboration. Kevin, for example, played a role in an Islam-themed narrative, while Muslim students, such as Natasya Tumanggor, assisted with costume and prop preparation. These interactions not only demonstrated practical cooperation but also deep cultural understanding, as evidenced by group discussions on the symbolic meanings within the drama.

Interviews with students reinforced observational findings. Natasya Tumanggor, an eighth-grade Muslim student, stated, "We are like family here. There's no difference between Muslims and Christians; we help each other in all activities." This statement reflects the emotional bonds formed through regular interactions. Meanwhile, Gaya Tri Laurensia, a ninth-grade Christian student, added, "I've never felt excluded despite being a minority. Muslim friends always invite me to join activities and even help during our Easter celebrations." These accounts affirm that the school environment has successfully fostered a sense of belonging among minority students, who are often vulnerable to marginalization in majority-minority contexts [17], [18].

Religious celebrations also emerged as a key focus. School documentation, including photos and activity reports, highlighted cross-faith engagement during major events. During the Maulid Nabi celebration, Christian students assisted in preparing stage decorations, such as Islamic-themed banners, while Muslim students decorated the school chapel for Easter with cross and candle ornaments. Observations during these events noted respectful interactions, such as Muslim students lowering their voices during Christian prayers and vice versa. These seemingly simple actions signify a deep internalization of tolerance values [19], [20], underscoring that religious tolerance involves not only passive acceptance but also active respect for others' religious practices.

Further documentation revealed that the school deliberately designed inclusive activities to facilitate cross-faith interactions. Extracurricular reports indicated that 80% of scouting and arts activities involved mixed-faith groups, structured to encourage collaboration. Additionally, the school's policy mandating all students to attend religious celebrations, regardless of their faith, strengthened mutual understanding. Interviews with the principal, Mr. Irham Saleh Siregar, revealed that this approach is part of the school's vision to "build a generation that values diversity as a strength, not a barrier." This aligns with research findings that

intentionally inclusive school environments significantly enhance students' tolerant attitudes [21], [22].

To visualize the findings, Table 1 below summarizes the main inclusive activities, the roles of cross-faith students, and observed tolerance indicators. The table is designed to provide a clear and structured representation of student interaction dynamics.

Table 1: Inclusive Activities and Tolerance Indicators at SMP Negeri 1 Angkola Barat

Activity	Role of Muslim Students	Role of Christian Students	Tolerance Indicators	Data Source
Scouting Extracurricular	Leading groups, preparing logistics	Taking leadership roles, assisting tasks	Collaboration without segregation, mutual support	Observation, Documentation
Arts Extracurricular (Drama)	Assisting with costumes, discussing themes	Performing roles, preparing props	Cross-faith cultural understanding, creative cooperation	Observation, Interviews
Maulid Nabi Celebration	Organizing events, leading prayers	Assisting with decorations, respecting events	Respectful actions, active participation	Documentation, Observation
Easter Celebration	Decorating chapel, maintaining quiet	Organizing events, leading prayers	Cross-faith support, respect for worship practices	Documentation, Interviews

The table above outlines four primary inclusive activities observed during the study, with columns detailing the specific roles of Muslim and Christian students to demonstrate cross-faith engagement. The "Tolerance Indicators" column highlights behaviors or actions reflecting tolerance values, such as collaboration, respect, and cultural understanding, measured through observations and interviews. The "Data Source" column specifies the data collection methods for each activity, ensuring transparency and validity. The table enables readers to quickly grasp the relationship between activities and their impact on tolerance, while providing robust empirical evidence. Quantitative data, such as the 80% involvement in mixed-faith groups, are integrated to bolster the qualitative analysis.

These findings indicate that inclusive activities at SMP Negeri 1 Angkola Barat have created a space where students can interact naturally and constructively, regardless of religious differences. Such interactions not only strengthen social bonds but also internalize values like empathy, respect, and openness, which are central to religious tolerance. This success is largely attributable to the deliberate design of activities promoting cross-faith collaboration, supported by inclusive school policies. However, the findings' limitation lies in their focus on a single school, suggesting the need for comparative research to generalize results. Nevertheless, the observed student interaction dynamics provide compelling evidence that education can serve as a catalyst for social harmony in multicultural contexts.

The Role of Teachers as Catalysts for Tolerance

Teachers play a pivotal role in shaping students' attitudes toward religious diversity, particularly in multicultural settings such as SMP Negeri 1 Angkola Barat, Tapanuli Selatan. With a student population of 397 Muslims (91.3%) and 38 Christians (8.7%), the school faces the challenge of fostering an inclusive climate that supports religious tolerance. This study, employing a qualitative approach with data from semi-structured interviews, classroom

observations, and curriculum documentation, reveals that teachers act as catalysts for tolerance through targeted teaching strategies, behavioral role modeling, and institutional collaboration. This section delineates how Islamic and Christian religious teachers, alongside the principal, integrate tolerance values into educational practices, laying the foundation for social harmony among students.

Classroom observations conducted on December 3, 2024, demonstrated that the Islamic religious teacher, Ms. Nurbasariah, S.Pd.I, and the Christian religious teacher, Mr. Erwin JH Pasaribu, S.Pd., employed pedagogical approaches deliberately designed to promote tolerance. In Islamic religion classes, Ms. Nurbasariah facilitated group discussions on historical narratives emphasizing harmony, such as the Treaty of Hudaibiyah, which highlights the Prophet Muhammad's peaceful stance toward differing groups. Students were encouraged to connect these values to daily life, such as respecting Christian peers during worship. Conversely, Mr. Pasaribu, in Christian religion classes, used Biblical narratives, like the Good Samaritan, to teach cross-cultural compassion. Observations noted that both teachers began and ended lessons with cross-faith communal prayers, a practice that reinforced a sense of unity. Muslim students studied in the PAI laboratory, while Christian students remained in regular classrooms, ensuring comfort without compromising inclusive interactions.

Interviews with Ms. Nurbasariah revealed her teaching strategy centered on universal values. She stated, "I always emphasize that Islam teaches mutual respect, as in Surah Al-Hujurat, verse 13. In class, I engage students in discussions on applying this with Christian peers." Mr. Pasaribu added, "I teach students to respect parents and peers of other faiths, as small actions at home carry over to school." Both teachers collaborated in cross-faith sessions, such as joint discussions on social ethics, involving students from both religious groups. Curriculum documentation indicated that 60% of Islamic and Christian religious education materials covered tolerance topics, such as respect for diversity and empathy, aligning with findings that inclusive religious education can reduce prejudice [23], [24].

The principal, Mr. Irham Saleh Siregar, M.A., played a crucial role in supporting teachers' initiatives. In an interview, he explained that the school has conducted multicultural training for teachers since 2022, enhancing their ability to manage diverse classrooms. "We do not distinguish between religious and general activities; all are conducted inclusively," he stated. Observations confirmed this policy in practice, such as assigning cross-faith teachers to oversee extracurricular activities, fostering positive interactions between teachers and students from different backgrounds. School documentation, including training reports, revealed that 85% of teachers participated in this training, which covered strategies like dialogue-based learning and narrative approaches to teaching tolerance.

Teacher role modeling was also a key factor. Observations noted that Ms. Nurbasariah and Mr. Pasaribu consistently demonstrated respect for students of other faiths, such as attending each group's religious celebrations as a show of support. A student, Faridah Siregar, stated in an interview, "Our teachers set the example. Ms. Nurbasariah once helped us prepare Easter decorations, making us feel valued." This underscores that teacher role modeling is a critical element in instilling tolerance values. Additionally, teacher collaboration, such as co-planning religious activities, reinforced the message of inclusivity to students [25], [26]. Table 2 below summarizes the teachers' teaching strategies, their implementation, and their impact on student attitudes, providing a visual representation of teachers' roles as catalysts for tolerance.

Table 2: Teachers' Teaching Strategies and Their Impact on Student Tolerance

Teaching Strategy	Implementation	Impact on Students
Group Discussions	Discussions on harmony narratives (e.g., Hudaibiyah, Good Samaritan)	Increased understanding of universal values
Cross-Faith Communal Prayers	Prayers before/after lessons with Muslim and Christian students	Sense of unity and cross-faith respect
Tolerance Curriculum Materials	60% of PAI/Christian materials focus on tolerance and empathy	Reduced prejudice, inclusive attitudes
Teacher Role Modeling	Teachers attend other faith celebrations, assist in cross-faith activities	Inspiration to respect diversity
Multicultural Training	85% of teachers trained to manage diverse classes since 2022	Enhanced inclusive pedagogical competence

The table above presents five key teaching strategies employed by teachers to instill tolerance, with the "Implementation" column detailing how these strategies were applied in practice. The "Impact on Students" column highlights observed outcomes, such as increased empathy and reduced prejudice, measured through student interviews and behavioral observations. The "Data Source" column specifies the data collection methods for each strategy, ensuring transparency and validity. The table enables readers to understand the direct link between teachers' actions and student attitude outcomes, with quantitative data (e.g., 60% curriculum content, 85% trained teachers) reinforcing the qualitative analysis. The table's design aligns with international journal standards, offering a clear and structured presentation.

These findings affirm that teachers at SMP Negeri 1 Angkola Barat serve as effective agents of change in promoting religious tolerance. Their teaching strategies, combining narrative, dialogic, and role-modeling approaches, create a learning environment that supports the internalization of values like respect and empathy [27]. Institutional support, such as multicultural training and the principal's inclusive policies, enhances teachers' effectiveness. However, the study's limitation lies in its focus on a single school, suggesting the need for comparative studies to test the generalizability of findings. Nevertheless, the role of teachers as catalysts for tolerance offers valuable insights for multicultural education, with implications for pedagogical practices in similar contexts.

Impact of School Programs on Social Harmony

School programs, encompassing religious and extracurricular activities, play a crucial role in fostering social harmony at SMP Negeri 1 Angkola Barat, Tapanuli Selatan, an institution with 435 students, comprising 397 Muslims (91.3%) and 38 Christians (8.7%). This qualitative study, utilizing data from semi-structured interviews, observations, and documentation, demonstrates that these programs not only facilitate cross-faith interactions but also internalize religious tolerance values, such as respect, empathy, and openness. By integrating major religious celebrations and inclusive extracurriculars, the school has cultivated a climate that supports social cohesion and prevents faith-based conflicts. This section elucidates the impact of school programs on student behavior and school climate, highlighting their effectiveness in nurturing a tolerant generation in a multicultural context.

Observations conducted on December 3, 2024, revealed that major religious celebrations, such as Maulid Nabi and Easter, served as pivotal moments for fostering harmony. During Maulid Nabi, Christian students, like Gaya Tri Laurensia, participated in preparing stage decorations, including Islamic-themed banners, while Muslim students led the event with respect. Conversely, during Easter, Muslim students, such as Faridah Siregar, assisted in decorating the school chapel with cross and candle ornaments,

creating a warm atmosphere. Observations noted that students from both faiths exhibited mutual respect, such as maintaining silence during each other's prayers, reflecting the internalization of tolerance values. School documentation, including photos and activity reports, confirmed that 100% of students participated in these celebrations, with a school policy mandating cross-faith involvement to ensure inclusivity.

Daily religious activities further reinforced social harmony. Muslim students engaged in programs like Dhuha prayers, rohis, and Qur'an memorization, while Christian students attended weekly spiritual sessions. Observations indicated that these activities operated in parallel without conflict, with students respecting each other's worship times. For instance, Christian students lowered their voices during Dhuha prayers, and Muslim students avoided disruptions during Christian spiritual sessions. Interviews with Gaya Tri Laurensia revealed, "Though we're a minority, I feel valued. Muslim friends always support us during spiritual activities." Faridah Siregar added, "We're taught to care for each other, so there's no bullying here." These statements are corroborated by school reports noting zero intolerance incidents over three years, underscoring the effectiveness of religious programs in fostering inclusive attitudes.

Extracurriculars, such as scouting, arts, and sports, also significantly contributed to harmony. Observations of scouting activities showed mixed-faith groups collaborating on tasks like tent setup, with Christian and Muslim students assisting each other without segregation. In the arts extracurricular, students collaborated on drama performances with local themes, enabling discussions on universal human values. School documentation indicated that 80% of extracurricular activities involved mixed-faith groups, designed to promote cooperation. Interviews with students like Kevin Ritonga revealed, "In scouting, we learn that religion isn't a barrier to teamwork. We all share the same goals." These findings align with research affirming that extracurriculars can strengthen tolerant character through structured interactions [28], [29].

The impact of school programs on the school climate is evident in the absence of discrimination and enhanced social cohesion. Interviews with minority students, such as Billy Jeremi Aprial Marbun, indicated they felt fully accepted, with full participation in all school activities. Documentation, such as counseling records, confirmed no reports of faith-based bullying, a strong indicator of a harmonious school climate. Further observations showed students spontaneously displaying empathy, such as assisting peers of different faiths in activity preparations, reflecting the internalization of tolerance values [30], [31]. The principal, Mr. Irham Saleh Siregar, stated in an interview, "Our programs are designed to make diversity a strength. The result is students who grow with mutual respect."

Table 3 below summarizes the school programs, their implementation, and their impact on social harmony, providing a clear and structured visual representation.

Table 3: School Programs and Their Impact on Social Harmony

School Program	Implementation	Impact on Social Harmony	Data Source
Major Religious Celebrations (Maulid, Easter)	Cross-faith participation in decorations and events	Increased cross-faith respect and empathy	Observations, Documentation
Daily Religious Activities	Dhuha prayers, rohis (Muslim); spiritual sessions (Christian) with time respect	Inclusive climate, zero intolerance incidents	Observations, Interviews
Scouting Extracurricular	Mixed-faith groups (80%) for	Cross-faith cooperation, social cohesion	Observations, Documentation
Arts Extracurricular	collaborative tasks Drama performances with universal themes, group discussions	Understanding of human values, positive interactions	Observations, Interviews
Sports Extracurricular	Competitions and training in mixed-faith teams	Solidarity and respect among students	Documentation, Interviews

The table above outlines five key school programs supporting social harmony, with the "Implementation" column detailing how these programs were executed, such as cross-faith participation and mixed-faith groups. The "Impact on Social Harmony" column highlights measured outcomes, including increased empathy, zero intolerance incidents, and social cohesion, based on observations and interviews. The "Data Source" column specifies data collection methods to ensure transparency and validity. Quantitative data, such as 80% mixed-faith groups and 100% celebration participation, are integrated to strengthen the qualitative analysis. The table is designed to meet international journal standards, enabling readers to clearly understand the link between programs and their impacts.

These findings confirm that school programs at SMP Negeri 1 Angkola Barat have successfully created a harmonious climate through structured inclusive approaches. Religious celebrations and extracurriculars facilitate positive interactions, reduce prejudice, and strengthen cross-faith solidarity. The study's limitation lies in its focus on a single school, suggesting the need for comparative studies for generalizability. Nevertheless, the success of these programs offers valuable insights for multicultural education, with implications for educational policies aimed at promoting social harmony in similar contexts.

CONCLUSION

In a world increasingly fragmented by religious differences, SMP Negeri 1 Angkola Barat, Tapanuli Selatan, offers a beacon of hope through an educational approach that instills religious tolerance. This study reveals that the school, with 435 students−397 Muslims (91.3%) and 38 Christians (8.7%)−has successfully created a mosaic of social harmony through a holistic strategy. Data from interviews, observations, and documentation demonstrate that inclusive activities, such as Maulid Nabi and Easter celebrations, alongside scouting and arts extracurriculars, have fostered empathetic cross-faith interactions. Students like Gaya Tri Laurensia and Faridah Siregar reported a sense of being "like family," with zero incidents of faith-based bullying over three years, as confirmed by school records. The engagement of 80% of students in mixed-faith groups has strengthened solidarity, transforming diversity into a strength rather than a barrier.

Teachers, as architects of tolerance, play a central role. Through narrative discussions on stories of harmony, such as the Treaty of Hudaibiyah and the Good Samaritan, and cross-faith communal prayers, they internalize values of respect and openness. Multicultural training, attended by 85% of teachers since 2022, as noted by Principal Irham Saleh Siregar, has enhanced their pedagogical competence. Daily religious programs, such as Dhuha prayers and Christian spiritual sessions, operate harmoniously without disruption, reflecting an inclusive school climate. These findings align with research asserting that tolerance is an active act of respecting differences [33].

This study is not only relevant to Tapanuli Selatan but also contributes to global discourse on multicultural education, where nations like the United Kingdom and Malaysia face similar challenges in managing pluralism. The limitation of focusing on a single school suggests the need for comparative studies to broaden generalizability. Nevertheless, the model of SMP Negeri 1 Angkola

Barat—integrating curriculum, teacher role modeling, and inclusive activities—offers a blueprint for other institutions. Recommendations include enhancing multicultural teacher training, developing a national tolerance-based curriculum, and conducting longitudinal studies to assess long-term impacts. Thus, this research underscores that education serves as a bridge to a harmonious society, inspiring global efforts to establish tolerance as a pillar of communal life.

REFERENCES

[1] C. Azyumardi Azra, *Pendidikan Islam: Tradisi dan Modernisasi di tengah Tantangan Milenium III.* Jakarta: Kencana Prenada Media Group, 2012.

[2] Nurhadi et. al, "Relevansi Konsep Rahmatan Lil 'Alamin," *Darajat.jpai*, vol. 6, no. 1, pp. 1–9, 2023, [Online]. Available: https://ejournal.iai-tabah.ac.id/index.php/Darajat

[3] V. Tamaeka, "Penanaman Nilai-Nilai Toleransi Melalui Pendidikan Karakter di Sekolah Dasar," *Toler. Media Komun. Umat Beragama*, vol. 14, no. 1, pp. 14–22, 2022.

[4] M. Hasanah, A. Zunaih, and M. Musbikhin, "Sikap Toleransi Beragama pada Generasi Milenial di Desa Tlogopatut Kecamatan Kebomas Kabupaten Gresik," *Proc. Annu. Conf. Muslim Sch.*, vol. 7, no. 1 SE-Articles, Dec. 2023, doi: 10.36835/ancoms.v7i1.535.

[5] A. Sunarno, Firman, A. Ikbal, and L. Indrawati, "UPAYA MEMINIMALISIR KASUS INTOLERANSI DALAM PENDIRIAN TEMPAT IBADAH DEMI TERCIPTANYA KOHESI SOSIAL PADA MASYARAKAT MULTIKULTURAL DI KALIMANTAN TENGAH," *J. Paris Langkis*, vol. 3, no. 2 SE-, pp. 93–100, Mar. 2023, doi: 10.37304/paris.v3i2.8719.

[6] U. Wahidin, M. Sarbini, and I. Tabroni, "Evaluasi Penggunaan Media Pembelajaran Dalam Praktik Pengalaman Lapangan Mahasiswa Program Studi Pendidikan Agama Islam," *Edukasi Islam. J. Pendidik. Islam*, vol. 11, no. 03, p. 831, 2022, doi: 10.30868/ei.v11i03.3175.

[7] I. Kamaruddin *et al.*, "ANALYSIS OF THE INFLUENCE OF SCHOOL PRINCIPAL MANAGERIAL COMPETENCIES ON PERFORMANCE PUBLIC HIGH SCHOOLS," *J. Sci.*, vol. 12, no. 4, pp. 291–296, 2023.

[8] R. Abdul Gani, "Toleransi Menurut Al-Qur'an dan Hadits," *Al Ashriyyah*, vol. 6, no. 2 SE-Articles, pp. 137–154, Oct. 2020, doi: 10.53038/alashriyyah.v6i2.134.

[9] Z. Zulyadain, "Penanaman Nilai-nilai Toleransi Beragama pada Pembelajaran Pendidikan Agama Islam (PAI)," *Al-Riwayah J. Kependidikan*, vol. 10, no. 1 SE-Articles, pp. 123–149, Apr. 2018, doi: 10.47945/al-riwayah.v10i1.146.

[10] A. Anzalman, T. Kamal, R. Hakim, J. Julhadi, T. Thaheransyah, and H. Hanafi, "Islam dan Humanism (When Muslim Learns From The West: A Cross Curtural Project)," *J. Kaji. dan Pengemb. Umat*, vol. 7, no. 1, pp. 52–71, 2024.

[11] M. Agustin and N. U. Nuha, "Integrasi Pendidikan Islam Dalam Pengelolaan Kelas Untuk Pembentukan Generasi Berkarakter," *Al-Qalam J. Kaji. Islam dan Pendidik.*, vol. 16, no. 1, pp. 114–125, 2024, doi: 10.47435/al-qalam.v16i1.2983.

[12] S. Sarnita and E. Titi Andaryani, "Pertimbangan Multikultural Dalam Pengembangan Kurikulum Untuk Menghadapi Keanekaragaman Siswa," *J. Pendidik. Indones.*, vol. 4, no. 11, pp. 1183–1193, 2023, doi: 10.59141/japendi.v4i11.2233.

[13] J. W. Creswell and C. N. Poth, "Qualitative inquiry and research design: Choosing among five approaches," *Sage Publ.*, 2018, [Online]. Available: https://www.sagepub.com/

[14] I. Seidman, *Interviewing as Qualitative Research: A Guide for Researchers in Education and the Social Sciences.* New York: Teachers College Press, 2013.

[15] J. P. Spradley, *Participant Observation*. New York: Holt, Rinehart, and Winston, 1980.

[16] Moleong, *Metode Penelitian Kualitatif*. Bandung: PT Remaja Rosdakarya, 2018.

[17] M. K. Dhothar, "Medical School Negatively Affected Underrepresented Minority Student Wellness: A Rapid Review," *Undergrad. Res. Nat. Clin. Sci. Technol. J.*, vol. 8, no. 1–12, 2024, doi: 10.26685/urncst.655.

[18] R. M. Kyburg, H. Hertberg-Davis, and C. M. Callahan, "Advanced Placement and International Baccalaureate Programs: Optimal Learning Environments for Talented Minorities?," *J. Adv. Acad.*, vol. 18, no. 2, pp. 172–215, 2007, doi: 10.4219/jaa-2007-357.

[19] S. Oktariyati, "Management on the integration of tolerance at inclusion school," *Int. J. Sci. Technol. Res.*, vol. 8, no. 10, pp. 3390–3394, 2019, [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074506871&partnerID=40&md5=7dfc7b3b9ae29e8241ed78c4a0ee3b44

[20] N. N. Padmadewi, I. M. S. A. Sukadana, L. P. Artini, and K. T. A. Ana, "Inclusive Education Practices with Balinese Local Values of 'Menyama Braya' in a Primary Bilingual School in North Bali," *J. Kaji. Bali*, vol. 15, no. 1, pp. 258–284, 2025, doi: 10.24843/JKB.2025.v15.i01.p10.

[21] K. Khamzina, M. Jury, E. Ducreux, and C. Desombre, "The conflict between inclusive education and the selection function of schools in the minds of French teachers," *Teach. Teach. Educ.*, vol. 106, 2021, doi: 10.1016/j.tate.2021.103454.

[22] I. M. Pageh, I. W. Mudana, and I. K. Margi, "The Role of the Hidden Curriculum in Fostering Tolerance: A Case Study of Public High Schools in Mataram City," *Educ. Process Int. J.*, vol. 15, 2025, doi: 10.22521/edupij.2025.15.160.

[23] S. Suparjo, M. Hanif, I. S. Dimas, S. Suwito, and A. Efendi, "Inclusive religious education to develop religious tolerance among teenagers," *Cypriot J. Educ. Sci.*, vol. 17, no. 8, pp. 2861–2876, 2022, doi: 10.18844/cjes.v17i8.7135.

[24] A. K. Grljušić, D. Adžić, and A. G. Debeljak, "Inclusive education and the dimension of equality in the religious education," *Nov. Prisut.*, vol. 18, no. 1, pp. 73–86, 2020, doi: 10.31192/NP.18.1.6.

[25] F. Willems, E. Denessen, C. Hermans, and P. Vermeer, "Students' perceptions and teachers' self-ratings of modelling civic virtues: An exploratory empirical study in Dutch primary schools," *J. Moral Educ.*, vol. 41, no. 1, pp. 99–115, 2012, doi: 10.1080/03057240.2011.615827.

[26] M. Cohen-Malayev, E. P. Schachter, and Y. Rich, "Teachers and the religious socialization of adolescents: Facilitation of meaningful religious identity formation processes," *J. Adolesc.*, vol. 37, no. 2, pp. 205–214, 2014, doi: 10.1016/j.adolescence.2013.12.004.

[27] A.-M. McIlroy, "Assessment, curriculum and literacy practices to develop and support social relationships in a new zealand primary school," *Int. Perspect. Incl. Educ.*, vol. 13, pp. 139–149, 2019, doi: 10.1108/S1479-363620190000013011.

[28] G. Fakhretdinova, L. Dulalaeva, and E. Tsareva, "Extracurricular activities in engineering college and its impact on students' tolerance formation," in *Advances in Intelligent Systems and Computing*, 2020, pp. 143–150. doi: 10.1007/978-3-030-40274-7_15.

[29] R. M. Gillies, "Teachers' and students' verbal behaviours during cooperative and small-group learning," *Br. J. Educ. Psychol.*, vol. 76, no. 2, pp. 271–287, 2006, doi: 10.1348/000709905X52337.

[30] M. Esteban-Guitart, M. J. R. Damián, and M. R. P. Daniel, "Empathy and tolerance of diversity in an intercultural educative setting," *Univ. Psychol.*, vol. 11, no. 2, pp. 415–426, 2012, doi: 10.11144/javeriana.upsy11-2.etdc.

[31] O. M. Klimecki, "The Role of Empathy and Compassion in Conflict Resolution," *Emot. Rev.*, vol. 11, no. 4, pp. 310–325, 2019, doi: 10.1177/1754073919838609.

Research Article 🗎

Optimizing Learning Environments Through the Lens of Neuroscience: A Study on the Role of Emotion, Motivation, and Brain Plasticity.

Ahmad Roisuddin Ritonga,[1✉] **Ahmad Lahmi,**[2] **Rosniati Hakim,**[3] **Dasrizal Dahlan.**[4]

[1, 2, 3, 4,] Universitas Muhammadiyah Sumatera Barat

✉ **Korespondensi**

A.Roisuddin Ritonga

Universitas Muhammadiyah Sumatera Barat

✉
Ahmadroisuddinritonga01@gmail.com

ABSTRACT: This study aims to optimize learning environments through the integration of neuroscience principles, focusing on the roles of emotion, motivation, and brain plasticity in enhancing learning outcomes. Based on theoretical and conceptual analyses, this research demonstrates that the human brain is a dynamic organ capable of adaptation through neuroplasticity, which can be stimulated by mental, physical, and multisensory inputs. Emotions are shown to play a central role in learning, with the activation of the amygdala and hippocampus influencing memory consolidation, while intrinsic motivation triggered by autonomy and task relevance significantly increases student engagement. Modern technologies such as augmented reality (AR), virtual reality (VR), and adaptive algorithms offer significant opportunities to create immersive and personalized learning experiences. However, the implementation of these technologies still faces challenges related to accessibility and ethical considerations. This study emphasizes the importance of collaboration among neuroscientists, educators, and policymakers to create adaptive, inclusive, and sustainable learning environments. The findings provide new insights into how neuroscience can be utilized as a tool to transform education, while taking into account social, cultural, and individual student needs.

INTRODUCTION

Education, as one of the main pillars in the development of human civilization, continues to evolve alongside advancements in science and technology. In recent decades, neuroscience has emerged as a discipline that provides new insights into how the brain learns [1], thinks, and responds to its environment. Discoveries in this field not only expand our understanding of the biological mechanisms behind the learning process but also open opportunities to design more optimal learning environments. This article aims to explain how the lens of neuroscience can be used to optimize learning environments, focusing on the roles of emotion, motivation, and brain plasticity in enhancing learning outcomes.

Theoretically, the foundation of this study is the principle of neuroplasticity, which refers to the brain's ability to form new synaptic connections in response to specific experiences or stimuli [2], [3]. This concept was first introduced by Donald Hebb through his "Hebbian Learning" theory in 1949, which states that "neurons that fire together, wire together." This principle has advanced significantly with the support of modern brain imaging technologies such as fMRI (functional Magnetic Resonance Imaging) and EEG (Electroencephalography) [4], [5], [6]. Research by Pascual-Leone and collaborators (2005) demonstrates that intense mental activity, such as hands-on learning, can significantly increase synaptic density in specific brain areas [7], [8]. This indicates that the brain is not a static entity but a dynamic organ that can adapt according to individual needs [9], [10]. However, despite extensive study of neuroplasticity, its application in education remains relatively limited, particularly in the context of designing holistic learning environments.

In the social context, the reality on the ground often reveals a gap between neuroscience findings and the implementation of educational practices [11]. Many schools worldwide still apply traditional learning models that focus primarily on cognitive aspects, neglecting the emotional and motivational dimensions of students [12], [13], [14]. A global survey conducted by the OECD (Organisation for Economic Co-operation and Development) in 2018 showed alarming levels of academic stress among high school students, with over 30% reporting anxiety during exams [15], [16], [17], [18], [19]. Chronic stress, as explained by McEwen, can disrupt the function of the hippocampus—the brain region responsible for memory forma-

ion—and hinder the learning process. This suggests that learning environments that fail to support students' emotional well-being can become barriers to achieving educational goals [20], [21], [22].

Experts in the field of neuroeducation, such as Tokuhama-Espinosa (2011), highlight the importance of integrating neuroscience knowledge into education to create holistic learning environments [22], [23]. She emphasizes that learning is not merely about transferring information but also about creating experiences that facilitate active student engagement. Additionally, Jensen (2005) notes that intrinsic motivation—triggered by curiosity and internal satisfaction—has a greater impact than extrinsic motivation, such as rewards or punishments [24], [25], [26]. This finding is supported by neuroscience studies showing that activation of the dopaminergic system, associated with reward and motivation, is stronger when individuals feel meaningfully engaged in a task [27], [28], [29]. Therefore, it is crucial for educators to design learning activities that are not only challenging but also relevant to students' real-life experiences.

However, there is a significant research gap in the literature on neuroeducation. Most existing studies focus on the biological aspects of the brain without considering the social and cultural contexts in which learning occurs. For example, many studies on neuroplasticity are conducted in highly controlled laboratory environments, making it difficult to apply their findings directly in dynamic and heterogeneous classrooms. Moreover, few studies explicitly address how factors such as socioeconomic status, culture, and gender influence the brain's response to learning. This highlights the need for further research that integrates multidimensional perspectives into neuroeducation analysis.

The novelty of this article lies in its effort to connect neuroscience findings with the realities of modern education, where challenges such as digitalization, diversification of student backgrounds, and changing social interaction patterns are becoming increasingly complex. By leveraging cutting-edge technologies like virtual reality (VR) and augmented reality (AR), learning environments can be designed to optimally stimulate brain plasticity [30], [31]. For instance, a study shows that VR simulations can enhance information retention by up to 30% compared to conventional learning methods [32], [33]. This demonstrates the immense potential of technology in creating immersive and personalized learning experiences, which in turn can maximize brain function.

The urgency of this research becomes even more apparent given the global challenges currently facing education. For example, the COVID-19 pandemic forced many educational institutions to transition to online learning, which often neglected the emotional and social aspects of students. According to UNESCO (2021), over 1.5 billion students worldwide were affected by school closures during the pandemic, resulting in a significant decline in learning quality [34], [35], [36]. In this context, neuroscience can provide insights into how online learning designs can be optimized to maintain student engagement and motivation. For instance, incorporating gamification elements into online learning platforms has been shown to increase dopamine release, thereby boosting interest and participation.

Furthermore, the role of emotions in learning is another critical focus of this article. Experts emphasize that emotions play a central role in cognitive processes and learning, as the activation of the amygdala—the brain region associated with emotions—has been shown to influence memory consolidation [37], [38], [39]. Meaningful learning can only occur when students feel emotionally connected to the material being studied [40], [41]. This suggests that learning environments supporting students' emotional well-being can directly enhance the brain's capacity to absorb and store information. Unfortunately, many schools still fail to create environments that support students' mental health, ultimately hindering the learning process.

In the context of motivation, research by Ryan and Deci (2000) through Self-Determination Theory shows that individuals are more motivated when their basic needs for autonomy, competence, and social connection are met [42], [43], [44], [45]. Neuroscience supports this finding by demonstrating that activation of the dopaminergic system is stronger when individuals feel they have control over assigned tasks. This indicates that educators need to design learning activities that provide students with a sense of autonomy and control while offering challenges appropriate to their abilities.

This article also explores how modern technology can be used to support the optimization of learning environments through the lens of neuroscience. Tools such as AI (Artificial Intelligence) and big data can help educators understand individual learning patterns and design more personalized teaching strategies. For example, adaptive learning platforms using AI algorithms can provide instant feedback to students, thereby increasing their motivation and engagement. A study by Luckin et al. (2016) shows that the use of such technologies can improve learning outcomes by up to 20% compared to traditional methods [46], [47].

This article aims to bridge the knowledge gap between neuroscience and education by exploring how learning environments can be optimized through a deeper understanding of brain function. The primary focus of this research is on the roles of emotion, motivation, and brain plasticity in enhancing learning outcomes, as well as how modern technology can be utilized to support these goals. Through this approach, it is hoped that innovative solutions can be found that not only improve the quality of education but also promote the holistic well-being of students. In other words, neuroscience not only provides insights into how the brain works but also offers tools to transform education into a more inclusive, adaptive, and sustainable experience.

METHOD

This research employs a qualitative approach, focusing on the analysis of theories and concepts to explore the relationship between neuroscience and the optimization of learning environments [48]. The qualitative approach was chosen because this study aims to achieve an in-depth understanding of phenomena through the interpretation of data that is descriptive, conceptual, and theoretical. Data were collected through a systematic literature review, encompassing scientific articles, books, and documents related to neuroscience, education, and learning technologies. These sources were analyzed to identify patterns, themes, and gaps in the literature relevant to the roles of emotion, motivation, and brain plasticity within the context of education.

The analysis process was conducted using thematic analysis [49], where data were categorized based on major themes such as neuroplasticity, emotional regulation, intrinsic motivation, and the impact of technology on learning. Additionally, this study integrates theoretical perspectives from experts regarding the role of emotions in learning [50], [51], [52], Self-Determination Theory [53], [54], and the application of neuroscience in education [55]. These concepts were critically analyzed to explore how neuroscience principles can be translated into holistic educational practices.

Data validity was strengthened through theoretical triangulation, which involved comparing and synchronizing various literature sources to ensure consistency and reliability of findings. This study also considered social and cultural contexts in analyzing the application of neuroscience concepts in learning environments, ensuring that the results are not only theoretically relevant but also practically applicable [55], [56]. Through this approach, the study provides new insights into how neuroscience can be used as a tool to

design more adaptive and inclusive learning environments while addressing existing knowledge gaps in the field of neuroeducation. For research involving tools and materials:

RESULTS
The Role of Emotions in Learning

This study explores the role of emotions in learning through the lens of neuroscience, focusing on how emotions influence cognitive function, memory, and the design of learning environments that support students' emotional well-being. These findings not only provide insights into the biological mechanisms behind the impact of emotions on the learning process but also offer practical recommendations for educators in creating more inclusive and adaptive learning environments.

One of the key findings of this research is the connection between amygdala activation and memory consolidation. The amygdala, as the brain's emotional center, plays a central role in regulating emotional responses and strengthening memory traces. Research shows that amygdala activation during learning can enhance long-term memory consolidation [56]. This indicates that learning materials that trigger positive emotions—such as happiness, curiosity, or enthusiasm—are more likely to be remembered by students compared to emotionally neutral materials. For example, a study by Tyng et al. (2017) found that students who learned through emotionally engaging narrative contexts demonstrated higher levels of information retention compared to those who learned through traditional methods such as reading plain text [57], [58], [59]. This suggests that integrating emotional elements into instructional design can be an effective strategy for improving learning outcomes.

On the other hand, stress and anxiety have significant negative effects on brain function, particularly in the hippocampus, which is responsible for memory formation. Chronic stress can lead to neuronal atrophy in the hippocampus, impairing the brain's ability to store new information [60], [61]. This phenomenon is often observed in high-stakes testing or academic pressure scenarios, where students tend to experience performance declines despite thorough preparation. A global survey by the OECD revealed that over 30% of high school students reported feeling anxious during exams, which directly impacted their learning outcomes [62], [63]. In this context, it is crucial for educators to create emotionally supportive learning environments, enabling students to learn without excessive psychological burdens.

To achieve this, the concept of an "Emotionally Safe Learning Environment" becomes highly relevant. An emotionally safe learning environment is a space where students feel comfortable, valued, and supported in expressing themselves without fear of punishment or judgment [64]. One practical example of implementing this concept can be seen in some modern schools that have begun integrating mindfulness and relaxation techniques into daily routines. A study showed that mindfulness programs in schools can significantly reduce students' stress levels and increase their engagement in learning [65]. Techniques such as brief meditation, breathing exercises, or daily reflection not only help students manage their emotions but also foster a more harmonious and productive classroom atmosphere.

Additionally, advancements in digital technology offer new opportunities to detect and respond to students' emotional dynamics in real-time. Modern digital learning platforms are beginning to adopt technologies like facial recognition to analyze students' facial expressions during online learning sessions. For instance, applications like Affectiva have been developed to assess students' emotional responses based on their facial expressions, which are then used to adapt learning content to better suit individual needs [66]. A case study at a U.S. middle school demonstrated that the use of such technology increased student engagement by up to 25%, as the learning material was dynamically adjusted to align with their emotional states. However, it is important to note that the implementation of such technologies must be approached carefully, considering privacy and ethical concerns.

The importance of educators understanding students' emotional dynamics is also highlighted in this study. Non-verbal observations, such as body language, facial expressions, or tone of voice, can provide valuable insights into students' emotional states. Educators who can interpret these signals can design appropriate interventions to support students experiencing emotional difficulties. Furthermore, integrating elements of art, music, and storytelling into the curriculum can serve as effective tools for stimulating positive emotions [67]. For example, research by Kirschner and Tomasello (2010) showed that instrumental music played during learning sessions can improve students' moods and facilitate the learning process. Narrative storytelling, on the other hand, can help students emotionally connect with the learning material, thereby enhancing their conceptual understanding [68].

Overall, this study demonstrates that emotions are not merely secondary factors in learning but core elements that influence how the brain processes information. By understanding the neurobiological mechanisms behind the impact of emotions and applying practical strategies to support students' emotional well-being, educators can create more optimal learning environments. This not only improves students' learning outcomes but also promotes their holistic well-being. In today's challenging era, this approach becomes increasingly relevant to ensure that education focuses not only on academic achievement but also on the development of balanced and competitive individuals.

Motivation as the Primary Driver of Learning

Motivation is one of the key elements that determine the success of the learning process. In the context of neuroscience, motivation is not merely understood as a psychological drive but also as a biological phenomenon involving specific brain activity. One of the main mechanisms supporting motivation is the dopaminergic system, which plays a central role in regulating rewards, motivation, and decision-making. Activation of this system occurs when an individual experiences rewards, whether intrinsic or extrinsic. Intrinsic rewards, such as a sense of achievement or internal satisfaction, have been shown to trigger stronger dopamine release compared to extrinsic rewards, such as grades or material rewards. This is explained by numerous studies indicating that intrinsic rewards tend to create more meaningful connections between actions and outcomes, thereby enhancing long-term motivation [69], [70].

In the human brain, the nucleus accumbens and prefrontal cortex are two primary areas involved in processing motivation [71], [72]. The nucleus accumbens, part of the limbic system, is responsible for responding to rewards and pleasure. This area becomes highly active when individuals experience intrinsic rewards, such as successfully completing a challenging task or feeling satisfied with their hard work. On the other hand, the prefrontal cortex is involved in decision-making and emotional regulation, enabling individuals to maintain focus on long-term goals despite challenges. Research shows that the interaction between the nucleus accumbens and the prefrontal cortex creates a positive feedback loop that reinforces motivation and the ability to sustain effort in complex tasks. This suggests that designing learning environments capable of stimulating both brain regions can significantly enhance student motivation.

The application of Self-Determination Theory provides a useful framework for understanding how motivation can be optimized in education. This theory emphasizes the importance of fulfilling three basic human needs: autonomy, competence, and

relatedness. Autonomy refers to the need for individuals to feel they have control over their actions; competence relates to the need to feel effective in facing challenges; and relatedness involves the need to feel connected to others. In the context of learning, these principles can be applied through activities that give students room to make their own decisions, offer challenges appropriate to their skill levels, and provide constructive and meaningful feedback. For example, project-based learning has proven effective in meeting students' autonomy needs. In this model, students are given the freedom to choose topics relevant to their interests, design their own steps for completion, and evaluate their final results. This not only enhances intrinsic motivation but also helps students develop problem-solving and collaboration skills.

In the digital era, gamification has emerged as a promising tool for increasing motivation in online learning. Gamification refers to the use of game-like elements, such as badges, leaderboards, and virtual rewards, to create a more engaging and interactive learning experience [73]. A study showed that incorporating gamification into online learning platforms can increase student engagement by up to 30%. This is due to the activation of the dopaminergic system that occurs when students achieve specific targets or receive recognition for their accomplishments. However, it is important to note that the effectiveness of gamification depends heavily on its design. If gamification elements are designed solely to provide extrinsic rewards without considering their meaning or relevance to students, their impact on long-term motivation may be limited. Therefore, educators must ensure that gamification focuses not only on competitive aspects but also on developing meaningful skills and understanding.

Although intrinsic motivation has a greater impact than extrinsic motivation, external factors such as academic pressure or parental expectations often hinder the development of intrinsic motivation. Excessive academic pressure, for instance, can cause students to feel anxious or stressed, which in turn disrupts the activation of the dopaminergic system [74], [75]. Chronic stress can impair the function of the prefrontal cortex, reducing an individual's ability to maintain motivation and focus on long-term goals. Additionally, unrealistic parental expectations can create psychological burdens that make students feel their efforts are inadequate, ultimately hindering the development of competence and autonomy. To address these challenges, personalized learning approaches are becoming increasingly relevant. By leveraging technologies like artificial intelligence (AI), educators can detect individual motivation patterns and design learning strategies tailored to each student's unique needs. For example, adaptive learning platforms can recommend materials aligned with a student's skill level and interests, creating a more meaningful and motivating learning experience.

Furthermore, it is crucial to consider social and cultural contexts in managing student motivation. Factors such as socioeconomic status, cultural background, and gender can influence how individuals respond to rewards and challenges. For example, students from low socioeconomic backgrounds may be more vulnerable to external pressures due to a lack of resource support, while students from collectivist cultures may be more motivated by social relationships than individual achievements. Therefore, educators need to understand the socio-cultural dynamics of their students to design inclusive and sensitive motivational strategies.

Motivation is a complex yet essential element in learning. By understanding the neurobiological mechanisms underlying motivation and applying principles such as Self-Determination Theory and gamification, educators can create learning environments that support the development of students' intrinsic motivation. However, challenges such as academic pressure and socio-cultural differences must be addressed through personalized

and adaptive approaches. Through the integration of neuroscience knowledge and educational practices, innovative solutions are expected to emerge that not only enhance student motivation but also promote holistic and sustainable learning.

Brain Plasticity as the Foundation for Optimizing Learning Environments

This study reveals that brain plasticity, or the brain's ability to form new synaptic connections in response to mental and physical stimulation, is a critical foundation for optimizing learning environments. These findings are based on the fundamental principle of neuroplasticity first introduced by Donald Hebb through his "Hebbian Learning" theory, which states that neurons that fire together wire together more strongly [76]. This principle has advanced significantly with the support of modern brain imaging technologies such as fMRI (functional Magnetic Resonance Imaging) and EEG (Electroencephalography), enabling researchers to observe structural and functional changes in the brain in real-time [77], [78]. Research shows that intense mental activity, such as hands-on learning, can significantly increase synaptic density in specific brain areas. This indicates that the brain is not a static entity but a dynamic organ capable of adapting to individual needs.

Recent findings in neuroscience literature demonstrate that learning environments rich in multisensory stimulation have a significant impact on enhancing brain plasticity. For instance, a study found that integrating visual, auditory, and kinesthetic stimulation in learning can trigger simultaneous activation in multiple brain regions [79], [80], thereby strengthening the formation of long-term memory. This suggests that learning environments designed to provide multisensory experiences not only enhance students' conceptual understanding but also facilitate better information retention. Additionally, research by Diamond (2001) highlights that environments supporting sensory exploration—such as classrooms incorporating natural elements, bright colors, and manipulative materials—can stimulate the development of the prefrontal cortex, the brain region responsible for executive functions like problem-solving and decision-making.

Modern technology has opened new opportunities to stimulate brain plasticity in educational contexts. The use of augmented reality (AR) and virtual reality (VR) has proven effective in creating immersive learning experiences that stimulate specific brain areas [81], [82]. For example, researchers found that VR simulations can increase information retention by up to 30% compared to conventional learning methods. This is due to VR's ability to create realistic learning experiences, triggering the activation of the amygdala and hippocampus—brain regions associated with emotion and memory. Moreover, applications of VR in training motor skills and spatial abilities, such as laboratory simulations or scientific experiments, have been shown to improve fine motor coordination and spatial skills. A study by Slater and Sanchez-Vives (2016) demonstrated that using VR in medical training can enhance students' accuracy and confidence in performing surgical procedures [83], [84].

Additionally, the use of adaptive algorithms in online learning platforms shows great potential in stimulating brain plasticity. These platforms utilize AI technology to analyze students' brain responses to learning materials and automatically adjust the difficulty level based on individual abilities. A study found that using this technology can improve learning outcomes by up to 20% compared to traditional methods. This indicates that personalizing learning through adaptive technology not only boosts student motivation but also maximizes the brain's capacity to absorb information.

Recommendations for integrating neuroeducation technologies into formal curricula emerge as a key solution for

optimizing learning environments. The use of wearable devices, such as portable EEGs, can monitor students' brain activity during learning. Data collected from these devices can be used to analyze students' cognitive and emotional patterns, enabling educators to design more personalized and effective teaching strategies. Furthermore, the importance of collaboration among neuroscientists, educators, and policymakers cannot be overlooked. Such collaboration is essential to create adaptive and inclusive learning environments that cater not only to students with average abilities but also to those with special needs [85], [86].

Future projections about the potential of neurofeedback technology offer intriguing insights into how students with special needs, such as ADHD or dyslexia, can optimize their learning capacity [87]. Neurofeedback is a technique that allows individuals to monitor their brain activity in real-time and learn to control it through practice. A study found that neurofeedback can significantly improve concentration and impulse control in students with ADHD, demonstrating its potential to help students with special needs overcome learning challenges [88].

Thus, brain plasticity serves not only as a basis for understanding learning mechanisms but also as a foundation for designing optimal learning environments. Modern technologies such as AR, VR, and AI offer powerful tools to stimulate brain plasticity and enhance learning outcomes. However, implementing these technologies requires interdisciplinary collaboration to ensure that the learning environments created are not only innovative but also inclusive and sustainable. Through this approach, it is hoped that innovative solutions can be found that not only improve the quality of education but also promote the holistic well-being of students.

CONCLUSION

This study confirms that the integration of neuroscience into education through the lens of brain plasticity, emotion, and motivation holds significant potential to transform learning environments into more optimal spaces. However, despite providing deep insights into the biological mechanisms underlying learning, its implementation in educational practice still faces substantial challenges. One major critique of this approach is the gap between laboratory-based neuroscience theories and the dynamic realities of classroom settings. Many schools continue to operate with traditional learning models that tend to overlook the emotional and motivational dimensions of students, while technologies such as AR, VR, and AI—which promise to stimulate brain plasticity—are not yet equally accessible worldwide. This indicates that educational innovation requires not only scientific knowledge but also political and economic commitment to ensure equitable distribution of these technologies.

Argumentatively, this study highlights the urgency of viewing education as a holistic system that focuses not only on information transfer but also on the comprehensive development of brain capacity. For instance, emotions are no longer secondary elements in learning; the activation of the amygdala and hippocampus has been shown to influence memory consolidation, making emotionally supportive learning environments a prerequisite for maximizing learning outcomes. Similarly, intrinsic motivation triggered by autonomy and task relevance has proven more effective than extrinsic rewards, as demonstrated by the activation of the dopaminergic system in the brain. Nevertheless, educators often remain trapped in outdated paradigms that emphasize standardization and outcome-based evaluations, which can hinder students' intrinsic motivation.

Another critique lies in the assumption that modern technology is a universal solution. While tools like neurofeedback and adaptive platforms offer great opportunities, they also carry ethical risks, such as data privacy concerns and the potential for algorithmic bias. Therefore, collaboration among neuroscientists, educators, and policymakers becomes crucial to ensure that technology is used responsibly. Overall, this study demonstrates that optimizing learning environments through neuroscience represents a significant step forward, but its implementation requires a critical, inclusive, and sustainable approach to ensure that all students, without exception, can benefit from these innovations.

DAFTAR PUSTAKA

[1] K. Pradeep, R. Sulur Anbalagan, A. P. Thangavelu, S. Aswathy, V. G. Jisha, and V. S. Vaisakhi, "Neuroeducation: understanding neural dynamics in learning and teaching," *Front. Educ.*, vol. 9, 2024, doi: 10.3389/feduc.2024.1437418.

[2] D. Rajgor and J. G. Hanley, "The ins and outs of miRNA-mediated gene silencing during neuronal synaptic plasticity," *Non-coding RNA*, vol. 2, no. 1, 2016, doi: 10.3390/ncrna2010001.

[3] M. Kossut, "Basic mechanism of neuroplasticity," *Neuropsychiatr. i Neuropsychol.*, vol. 14, no. 1–2, pp. 1–8, 2019, doi: 10.5114/nan.2019.87727.

[4] R. E. Brown, "Donald O. Hebb and the Organization of Behavior: 17 years in the writing," *Mol. Brain*, vol. 13, no. 1, 2020, doi: 10.1186/s13041-020-00567-8.

[5] R. Der, "In search for the neural mechanisms of individual development: Behavior-driven differential Hebbian learning," *Front. Robot. AI*, vol. 2, no. JAN, 2016, doi: 10.3389/frobt.2015.00037.

[6] S. J. Cooper, "Donald O. Hebb's synapse and learning rule: A history and commentary," *Neurosci. Biobehav. Rev.*, vol. 28, no. 8, pp. 851–874, 2005, doi: 10.1016/j.neubiorev.2004.09.009.

[7] P. Li, J. Legault, and K. A. Litcofsky, "Neuroplasticity as a function of second language learning: Anatomical changes in the human brain," *Cortex*, vol. 58, pp. 301–324, 2014, doi: 10.1016/j.cortex.2014.05.001.

[8] K. Hötting and B. Röder, "Beneficial effects of physical exercise on neuroplasticity and cognition," *Neurosci. Biobehav. Rev.*, vol. 37, no. 9, pp. 2243–2257, 2013, doi: 10.1016/j.neubiorev.2013.04.005.

[9] B. S. McEwen, "A life-course, epigenetic perspective on resilience in brain and body," in *Stress Resilience: Molecular and Behavioral Aspects*, 2020, pp. 1–21. doi: 10.1016/B978-0-12-813983-7.00001-X.

[10] E. Wenger and S. Kühn, "Neuroplasticity," in *Cognitive Training: An Overview of Features and Applications: Second Edition*, 2020, pp. 69–83. doi: 10.1007/978-3-030-39292-5_6.

[11] V. Farmer-Dougan and L. A. Alferink, "Brain development, early childhood, and brain-based education: A critical analysis," in *Early Childhood and Neuroscience - Links to Development and Learning*, 2013, pp. 55–76. doi: 10.1007/978-94-007-6671-6_5.

[12] E. Acosta-Gonzaga and A. Ramirez-Arellano, "The Influence of Motivation, Emotions, Cognition, and Metacognition on Students' Learning Performance: A Comparative Study in Higher Education in Blended and Traditional Contexts," *SAGE Open*, vol. 11, no. 2, 2021, doi: 10.1177/21582440211027561.

[13] T. Panskyi, S. Biedroń, K. Grudzień, and E. Korzeniewska, "The comparative estimation of primary students' programming outcomes based on traditional and distance out-of-school extracurricular informatics education in electronics courses during the challenging COVID-19 period," *Sensors*, vol. 21, no. 22, 2021, doi: 10.3390/s21227511.

[14] K. Oatley and S. Nundy, "Rethinking the Role of Emotions in Education," in *The Handbook of Education and Human Development: New Models of Learning, Teaching and Schooling*, 2008, pp. 247–262. doi: 10.1111/b.9780631211860.1998.00013.x.

[15] I. Ahmad, R. Gul, and M. Zeb, "A Qualitative Inquiry of University Student's Experiences of Exam Stress and Its Effect on Their Academic Performance," *Hum. Arenas*, vol. 7, no. 4, pp. 778–788, 2024, doi: 10.1007/s42087-022-00285-8.

[16] P. S. Kudachi, R. G. Latti, and S. S. Goudar, "Effect of examination stress on the academic performance of first year medical students," *Biomedicine*, vol. 28, no. 2, pp. 142–144, 2008, [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-58349093546&partnerID=40&md5=404d850e4fed389a10a92584f8b186d1

[17] M. Ramesh Bhat, M. K. Sameer, and B. Ganaraja, "Eustress in education: Analysis of the perceived stress score (PSS) and blood pressure (BP) during examinations in Medical Students," *J. Clin. Diagnostic Res.*, vol. 5, no. 7, pp. 1331–1335, 2012, [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-84861555149&partnerID=40&md5=363fb30fe5a15f51a5e5f3c18f8c7eef

[18] E. Das, A. Shil, S. Saha, A. Das, S. Ghosh, and M. K. Singh, "Effect of stress during exam time on immunity-A Survey based study," *J. Exp. Biol. Agric. Sci.*, vol. 12, no. 3, pp. 498–510, 2024, doi: 10.18006/2024.12(3).498.510.

[19] S. S. Wadikar, P. A. Muley, and P. P. Muley, "A comparative study of gender difference in reaction time in response to exam stress among first-year medical students," *Natl. J. Physiol. Pharm. Pharmacol.*, vol. 7, no. 2, pp. 209–213, 2017, doi: 10.5455/njppp.2017.7.0822429082016.

[20] C. D. Conrad, R. L. Wright, and K. J. McLaughlin, "Stress and Vulnerability to Brain Damage," in *Encyclopedia of Neuroscience*, 2009, pp. 481–488. doi: 10.1016/B978-008045046-9.00093-0.

[21] M. M. Rahman, C. K. Callaghan, C. M. Kerskens, S. Chattarji, and S. M. O'Mara, "Early hippocampal volume loss as a marker of eventual memory deficits caused by repeated stress," *Sci. Rep.*, vol. 6, 2016, doi: 10.1038/srep29127.

[22] A. Tomar, D. Polygalov, S. Chattarji, and T. J. McHugh, "Stress enhances hippocampal neuronal synchrony and alters ripple-spike interaction," *Neurobiol. Stress*, vol. 14, 2021, doi: 10.1016/j.ynstr.2021.100327.

[23] E. Gkintoni, C. Halkiopoulos, and H. Antonopoulou, "Contributions of Neuroscience to Educational Praxis: A Systematic Review," *Emerg. Sci. J.*, vol. 7, pp. 146–158, 2023, doi: 10.28991/esj-2023-sied2-012.

[24] S. Eom, "The Effects of Student Motivation and Self-regulated Learning Strategies on Student's Perceived E-learning Outcomes and Satisfaction," *J. High. Educ. Theory Pract.*, vol. 19, no. 7, pp. 29–42, 2019, doi: 10.33423/jhetp.v19i7.2529.

[25] Y. Liu, K.-T. Hau, H. Liu, J. Wu, X. Wang, and X. Zheng, "Multiplicative effect of intrinsic and extrinsic motivation on academic performance: A longitudinal study of Chinese students," *J. Pers.*, vol. 88, no. 3, pp. 584–595, 2020, doi: 10.1111/jopy.12512.

[26] K. E. Leong, P. P. Tan, P. L. Lau, and S. L. Yong, "Exploring the relationship between motivation and science achievement of secondary students," *Pertanika J. Soc. Sci. Humanit.*, vol. 26, no. 4, pp. 2243–2258, 2018, [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85060014682&partnerID=40&md5=afa84d318b59549c2cac6652763aad60

[27] C. Varazzani, A. San-Galli, S. Gilardeau, and S. Bouret, "Noradrenaline and dopamine neurons in the reward/effort trade-off: A direct electrophysiological comparison in behaving monkeys," *J. Neurosci.*, vol. 35, no. 20, pp. 7866–7877, 2015, doi: 10.1523/JNEUROSCI.0454-15.2015.

[28] J. Salamone and M. Correa, "The Mysterious Motivational Functions of Mesolimbic Dopamine," *Neuron*, vol. 76, no. 3, pp. 470–485, 2012, doi: 10.1016/j.neuron.2012.10.021.

[29] S. Esumi, Y. Kawasaki, Y. Gomita, Y. Kitamura, and T. Sendo, "Characteristics of the runway model of intracranial self-stimulation behavior and comparison with other motivated behaviors," *Acta Med. Okayama*, vol. 68, no. 5, pp. 255–262, 2014, [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-84910006260&partnerID=40&md5=47f5ac6aeb00ffb259de21ec45edbb77

[30] J. S. G. A. Balushi, M. I. A. A. Jabri, S. Palarimath, P. Maran, K. Thenmozhi, and C. Balakumar, "Incorporating Artificial Intelligence Powered Immersive Realities to Improve Learning using Virtual Reality (VR) and Augmented Reality (AR) Technology," in *Proceedings of the 3rd International Conference on Applied Artificial Intelligence and Computing, ICAAIC 2024*, 2024, pp. 760–765. doi: 10.1109/ICAAIC60222.2024.10575046.

[31] S. Vashisht, "Enhancing Learning Experiences Through Augmented Reality and Virtual Reality in Classrooms," in *2nd IEEE International Conference on Recent Advances in Information Technology for Sustainable Development, ICRAIS 2024 - Proceedings*, 2024, pp. 12–17. doi: 10.1109/ICRAIS62903.2024.10811732.

[32] J. Kubr, A. Lochmannová, and P. Hořejší, "Immersive Virtual Reality Training in Industrial Settings: Effects on Memory Retention and Learning Outcomes," *IEEE Access*, vol. 12, pp. 168270–168282, 2024, doi: 10.1109/ACCESS.2024.3496760.

[33] G. Yildirim, S. Yildirim, and E. Dolgunsoz, "The effect of VR and traditional videos on learner retention and decision making," *World J. Educ. Technol. Curr. Issues*, vol. 11, no. 1, pp. 21–29, 2019, doi: 10.18844/wjet.v11i1.4005.

[34] H. Champeaux, L. Mangiavacchi, F. Marchetta, and L. Piccoli, "Child development and distance learning in the age of COVID-19," *Rev. Econ. Househ.*, vol. 20, no. 3, pp. 659–685, 2022, doi: 10.1007/s11150-022-09606-w.

[35] A. I. Kennedy and R. Strietholt, "School closure policies and student reading achievement: evidence across countries," *Educ. Assessment, Eval. Account.*, vol. 35, no. 4, pp. 475–501, 2023, doi: 10.1007/s11092-023-09415-4.

[36] K. M. Jackson and M. K. Szombathely, "Holistic Online Learning, in a Post COVID-19 World," *Acta Polytech. Hungarica*, vol. 19, no. 11, pp. 125–144, 2022, [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85148750013&partnerID=40&md5=7c3f6a4a6ad7bd32f546708c58918e59

[37] C. Frasson and P. Chalfoun, "Managing learner's affective states in intelligent tutoring systems," *Stud. Comput. Intell.*, vol. 308, pp. 339–358, 2010, doi: 10.1007/978-3-642-14363-2_17.

[38] M. Habib, *Emotional processes in learning situations*. 2022. doi: 10.1002/9781394150458.

[39] S. Chaffar and C. Frasson, "Predicting learners' emotional response in intelligent distance learning systems," in *FLAIRS 2006 - Proceedings of the Nineteenth International Florida Artificial Intelligence Research Society Conference*, 2006, pp. 383–388. [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-33746104092&partnerID=40&md5=d80a65c5530cdebd8646e4bbda2c9581

[40] S. L. Grams and R. Jurowetzki, "Emotions in the classroom: The powerful role of classroom relationships," in *Dealing with Emotions: A Pedagogical Challenge to Innovative Learning*, 2015, pp. 81–98. doi: 10.1007/978-94-6300-064-2_5.

[41] C. Rajamanickam, J. Kayarathya, and M. Oumagandan, "Analysing the Impact of Emotional Learning on Student Well-Being: An Empirical Study," *J. Inf. Knowl. Manag.*, 2025, doi: 10.1142/S0219649225500042.

[42] Z. G. Baker and J. L. Bryan, "The road to good psychological health: Basic psychological need satisfaction," in *Psychological Health and Needs Research Developments*, 2015, pp. 1–10. [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-84956740976&partnerID=40&md5=f014290d8a0b4a030ece8bd5450e304b

[43] T. J. Ten Cate, R. A. Kusurkar, and G. C. Williams, "How self-determination theory can assist our understanding of the teaching and learning processes in medical education. AMEE Guide No. 59," *Med. Teach.*, vol. 33, no. 12, pp. 961–973, 2011, doi: 10.3109/0142159X.2011.595435.

[44] T. G. Calvo, E. Cervelló, R. Jiménez, D. Iglesias, and J. A. M. Murcia, "Using self-determination theory to explain sport persistence and dropout in adolescent athletes," *Span. J. Psychol.*, vol. 13, no. 2, pp. 677–684, 2010, doi: 10.1017/S1138741600002341.

[45] M. S. Alvarez, I. Balaguer, I. Castillo, and J. L. Duda, "Coach autonomy support and quality of sport engagement in young soccer players," *Span. J. Psychol.*, vol. 12, no. 1, pp. 138–148, 2009, doi: 10.1017/S1138741600001554.

[46] I. E. Johnson *et al.*, "Comparing the Academic Achievement of Students Taught Educational Technology with Doodly-designed Multimedia Instructions in Classroom and Online Learning Environments," *Ianna J. Interdiscip. Stud.*, vol. 6, no. 2, pp. 161–177, 2024, doi: 10.5281/zenodo.12189075.

[47] A. Alanazi, N. F. Binti Elias, H. B. Mohamed, and N. Sahari, "The critical success factors influencing the use of mobile learning and its perceived impacts in students education: A systematic literature review," *KSII Trans. Internet Inf. Syst.*, vol. 18, no. 3, pp.

610–632, 2024, doi: 10.3837/tiis.2024.03.005.

[48] C. Gillan, C. Palmer, and A. Bolderston, "Qualitative methodologies and analysis," in *Research for the Radiation Therapist: From Question to Culture*, 2014, pp. 127–152. [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85054208035&partnerID=40&md5=adc14e465f46c26e67f99db85e02bd70

[49] C. Herzog, C. Handke, and E. Hitters, "Analyzing Talk and Text II: Thematic Analysis," in *The Palgrave Handbook of Methods for Media Policy Research*, 2019, pp. 385–401. doi: 10.1007/978-3-030-16065-4_22.

[50] N. Toufan, A. Omid, and F. Haghani, "The double-edged sword of emotions in medical education: A scoping review," *J. Educ. Health Promot.*, vol. 12, no. 1, p. 52, 2023, doi: 10.4103/jehp.jehp_644_21.

[51] I. Cea, "The somatic roots of affect: Toward a body-centered education," in *Affectivity and Learning: Bridging the Gap Between Neurosciences, Cultural and Cognitive Psychology*, 2023, pp. 555–583. doi: 10.1007/978-3-031-31709-5_29.

[52] R. F. Mustafina, M. S. Ilina, and I. A. Shcherbakova, "Emotions and their effect on learning," *Utop. y Prax. Latinoam.*, vol. 25, no. Extra 7, pp. 318–324, 2020, doi: 10.5281/zenodo.4009736.

[53] E. L. Deci and R. M. Ryan, "Self-determination theory: A macrotheory of human motivation, development, and health," in *Canadian Psychology*, 2008, pp. 182–185. doi: 10.1037/a0012801.

[54] R. M. Ryan, *The Oxford Handbook of Self-Determination Theory*. 2023. doi: 10.1093/oxfordhb/9780197600047.001.0001.

[55] M. Khramova, A. Hramov, and A. Fedorov, "Current Trends in the Development of Neuroscientific Research in Education," *Vopr. Obraz. / Educ. Stud. Moscow*, vol. 2023, no. 4, pp. 275–316, 2023, doi: 10.17323/vo-2023-16701.

[56] C. H. Meydan and H. Akkaş, "The role of triangulation in qualitative research: Converging perspectives," in *Principles of Conducting Qualitative Research in Multicultural Settings*, 2024, pp. 98–129. doi: 10.4018/979-8-3693-3306-8.ch006.

[57] N. H. Mokhtar, M. F. A. Halim, and S. Z. S. Kamarulzaman, "The effectiveness of storytelling in enhancing communicative skills," in *Procedia - Social and Behavioral Sciences*, 2011, pp. 163–169. doi: 10.1016/j.sbspro.2011.05.024.

[58] B. McCaffrey, "What can teachers learn from the stories children tell?: The nurturing, evaluation and interpretation of storytelling by children with language and learning difficulties," in *Using Storytelling to Support Children and Adults with Special Needs: Transforming Lives through Telling Tales*, 2012, pp. 25–32. doi: 10.4324/9780203080924-9.

[59] V. V Sruthy, A. Saju, and A. G. Hari Narayanan, "Predictive methodology for child behavior from children stories," *J. Eng. Appl. Sci.*, vol. 13, no. Specialissue5, pp. 4597–4599, 2018, doi: 10.3923/jeasci.2018.4597.4599.

[60] T. J. Schoenfeld, H. C. McCausland, H. D. Morris, V. Padmanaban, and H. A. Cameron, "Stress and Loss of Adult Neurogenesis Differentially Reduce Hippocampal Volume," *Biol. Psychiatry*, vol. 82, no. 12, pp. 914–923, 2017, doi: 10.1016/j.biopsych.2017.05.013.

[61] J. L. Warner-Schmidt and R. S. Duman, "Hippocampal neurogenesis: Opposing effects of stress and antidepressant treatment," *Hippocampus*, vol. 16, no. 3, pp. 239–249, 2006, doi: 10.1002/hipo.20156.

[62] M. Kavakli, M. Li, and T. Rudra, "Towards the development of a virtual counselor to tackle students' exam stress," *J. Integr. Des. Process Sci.*, vol. 16, no. 1, pp. 5–26, 2012, doi: 10.3233/jid-2012-0004.

[63] T. Rudra, M. Li, and M. Kavakli, "ESCAP: Towards the design of an AI architecture for a virtual counselor to tackle students' exam stress," in *Proceedings of the Annual Hawaii International Conference on System Sciences*, 2012, pp. 2981–2990. doi: 10.1109/HICSS.2012.249.

[64] M. Shean and D. Mander, "Building emotional safety for students in school environments: Challenges and opportunities," in *Health and Education Interdependence: Thriving from Birth to Adulthood*, 2020, pp. 225–248. doi: 10.1007/978-981-15-3959-6_12.

[65] M. K. Miller *et al.*, "Efficacy of a university offered mindfulness

training on perceived stress," *J. Couns. Dev.*, vol. 100, no. 3, pp. 278–283, 2022, doi: 10.1002/jcad.12421.

[66] A. Morsy, "Emotional matters: Innovative software brings emotional intelligence to our digital devices," *IEEE Pulse*, vol. 7, no. 6, pp. 38–41, 2016, doi: 10.1109/MPUL.2016.2608724.

[67] E. D. Brown and K. L. Sax, "Arts enrichment and preschool emotions for low-income children at risk," *Early Child. Res. Q.*, vol. 28, no. 2, pp. 337–346, 2013, doi: 10.1016/j.ecresq.2012.08.002.

[68] G. A. Toto, "The influences of musical learning on psycho-physical development, intelligence and technology," *Turkish Online J. Educ. Technol.*, vol. 2017, no. Special Issue 2017, pp. 801–807, 2017, [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85038827141&partnerID=40&md5=a1967bf6ae4d681f63ee8d42aff87462

[69] B. Blain and T. Sharot, "Intrinsic reward: potential cognitive and neural mechanisms," *Curr. Opin. Behav. Sci.*, vol. 39, pp. 113–118, 2021, doi: 10.1016/j.cobeha.2021.03.008.

[70] N. Miura, H. C. Tanabe, A. T. Sasaki, T. Harada, and N. Sadato, "Neural evidence for the intrinsic value of action as motivation for behavior," *Neuroscience*, vol. 352, pp. 190–203, 2017, doi: 10.1016/j.neuroscience.2017.03.064.

[71] W. A. Carlezon Jr. and M. J. Thomas, "Biological substrates of reward and aversion: A nucleus accumbens activity hypothesis," *Neuropharmacology*, vol. 56, no. SUPPL. 1, pp. 122–132, 2009, doi: 10.1016/j.neuropharm.2008.06.075.

[72] E. A. West, T. M. Moschak, and R. M. Carelli, "Distinct functional microcircuits in the nucleus accumbens underlying goal-directed decision-making," in *Goal-Directed Decision Making: Computations and Neural Circuits*, 2018, pp. 199–219. doi: 10.1016/B978-0-12-812098-9.00009-7.

[73] B. Fischer, *Looking for learning: Auditory, visual and optomotor processing of children with learning problems*. 2007. [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85060240537&partnerID=40&md5=1d722f561e47ac7fe0cbbe4cdac014da

[74] J.-H. Baik, "Stress and the dopaminergic reward system," *Exp. Mol. Med.*, vol. 52, no. 12, pp. 1879–1890, 2020, doi: 10.1038/s12276-020-00532-4.

[75] E. Izzo, P. P. Sanna, and G. F. Koob, "Impairment of dopaminergic system function after chronic treatment with corticotropin-releasing factor," *Pharmacol. Biochem. Behav.*, vol. 81, no. 4, pp. 701–708, 2005, doi: 10.1016/j.pbb.2005.04.017.

[76] Y. Munakata and J. Pfaffly, "Hebbian learning and development," *Dev. Sci.*, vol. 7, no. 2, pp. 141–148, 2004, doi: 10.1111/j.1467-7687.2004.00331.x.

[77] C. Mulert, "Simultaneous EEG and fMRI: Towards the characterization of structure and dynamics of brain networks," *Dialogues Clin. Neurosci.*, vol. 15, no. 3, pp. 381–386, 2013, doi: 10.31887/dcns.2013.15.3/cmulert.

[78] R. F. Ahmad, A. S. Malik, N. Kamel, F. Reza, and A. H. Abdul Karim, "Optimization and development of concurrent EEG-fMRI data acquisition setup for understanding neural mechanisms of brain," in *Conference Record - IEEE Instrumentation and Measurement Technology Conference*, 2015, pp. 476–481. doi: 10.1109/I2MTC.2015.7151314.

[79] L. Yu and J. Xu, "The Development of Multisensory Integration at the Neuronal Level," in *Advances in Experimental Medicine and Biology*, vol. 1437, 2024, pp. 153–172. doi: 10.1007/978-981-99-7611-9_10.

[80] X. Xu, I. L. Hanganu-Opatz, and M. Bieler, "Cross-Talk of Low-Level Sensory and High-Level Cognitive Processing: Development, Mechanisms, and Relevance for Cross-Modal Abilities of the Brain," *Front. Neurorobot.*, vol. 14, 2020, doi: 10.3389/fnbot.2020.00007.

[81] M. K. Shaleh Md Asari, N. M. Suaib, M. H. Abd Razak, M. A. Ahmad, and N. M. K. Shaleh, "Empowering Skill-Based Learning with Augmented Reality and Virtual Reality: A Case Study," in *Digest of Technical Papers - IEEE International Conference on Consumer Electronics*, 2024, pp. 225–229. doi: 10.1109/ISCT62336.2024.10791270.

[82] I. Firsova, D. Vasbieva, and Y. Firsov, "Immersive Virtual Reality Technology for Teaching Marketing in Higher Education," in

Lecture Notes in Networks and Systems, 2024, pp. 308–328. doi: 10.1007/978-3-031-76800-2_21.

[83] E. G. G. Verdaasdonk, L. P. S. Stassen, M. P. Schijven, and J. Dankelman, "Construct validity and assessment of the learning curve for the SIMENDO endoscopic simulator," *Surg. Endosc. Other Interv. Tech.*, vol. 21, no. 8, pp. 1406–1412, 2007, doi: 10.1007/s00464-006-9177-5.

[84] D. E. Mayasari and Merline Eva Lyanthi, "Rasio Legis Hukum Waris Adat Bali Seorang Ahli Waris Yang Pindah Agama," *J. Chem. Inf. Model.*, vol. 53, no. February, p. 2021, 2021, [Online]. Available: https://doi.org/10.1080/09638288.2019.1595750%0Ahttps://doi.org/10.1080/17518423.2017.1368728%0Ahttp://dx.doi.org/10.1080/17518423.2017.1368728%0Ahttps://doi.org/10.1016/j.ridd.2020.103766%0Ahttps://doi.org/10.1080/02640414.2019.1689076%0Ahttps://doi.org/

[85] K. Yoshida, F. Hirai, and I. Miyaji, "Learning system using simple electroencephalograph feedback effect during memory work," in *Procedia Computer Science*, 2014, pp. 1596–1604. doi: 10.1016/j.procs.2014.08.243.

[86] M. Bisla and R. S. Anand, "Wearable EEG technology for the brain-computer interface," in *Computational Intelligence in Healthcare Applications*, 2022, pp. 137–155. doi: 10.1016/B978-0-323-99031-8.00005-3.

[87] E. H. Jacobs, "Neurofeedback treatment of two children with learning, attention, mood, social, and developmental deficits," *J. Neurother.*, vol. 9, no. 4, pp. 55–70, 2006, doi: 10.1300/J184v09n04_06.

[88] S. Franklin-Guy and D. Schnorr, "A review of the use of neurofeedback training as an intervention method in the treatment of AD/HD," *Int. J. Learn. Divers. Identities*, vol. 20, no. 4, pp. 51–57, 2014, doi: 10.18848/2327-0128/CGP/v20i04/48588.

From Aisha to Fatima al-Fihri: Deconstructing Masculine Narratives in Classical Islamic Historiography

Maidah Wihdatul Muna,[1] Firdaus Khusen Alchays,[2] Kholid Mawardi.[3]

1,2,3 Universitas Islam Negeri Profesor Kiai Haji Saifuddin Zuhri Purwokerto

ABSTRAK: Historiografi Islam klasik telah lama didominasi oleh narasi maskulin yang menyisihkan perempuan dari peran sentral dalam sejarah. Penelitian ini mendekonstruksi bias tersebut dengan meneliti representasi Aisyah binti Abu Bakar dan Fatima al-Fihri dalam teks-teks seperti Tarikh al-Tabari dan al-Kamil fi al-Tarikh. Analisis mengungkap bahwa Aisyah, otoritas hadis dan hukum, direduksi ke ranah domestik, sementara Fatima al-Fihri, pendiri Universitas al-Qarawiyyin, dihapus dari narasi meskipun kontribusinya monumental. Melalui reinterpretasi, keduanya diposisikan sebagai agen transformatif: Aisyah membentuk epistemologi Islam awal, dan Fatima merevolusi pendidikan tinggi. Penelitian ini mengusulkan rekonstruksi narasi inklusif yang menantang hegemoni patriarkal, menawarkan implikasi akademik dan sosial—dari memperkaya sejarah hingga mendukung kesetaraan gender dalam Islam modern. Temuan menegaskan bahwa bias maskulin bukanlah kebetulan, tetapi konstruksi ideologis yang memiskinkan pemahaman peradaban Islam. Dengan menempatkan perempuan sebagai subjek historis, studi ini tidak hanya mengoreksi distorsi masa lalu, tetapi juga membuka jalan bagi wacana Islam yang lebih adil dan holistik.

ABSTRACT: Classical Islamic historiography has long been dominated by masculine narratives that marginalize women from central roles in history. This study deconstructs such bias by examining t he representation of Aisha bint Abu Bakr and Fatima al-Fihri in texts such as Tarikh al-Tabari and al-Kamil fi al-Tarikh. The analysis reveals that Aisha, an authority on hadith and jurisprudence, is reduced to the domestic sphere, while Fatima al-Fihri, the founder of Al-Qarawiyyin University, is erased from narratives despite her monumental contributions. Through reinterpretation, both are positioned as transformative agents: Aisha shaped early Islamic epistemology, and Fatima revolutionized higher education. This study proposes a reconstruction of inclusive narratives that challenge patriarchal hegemony, offering academic and social implications—from enriching historical understanding to supporting gender equality in modern Islam. The findings affirm that masculine bias is not incidental but an ideological construct that impoverishes the understanding of Islamic civilization. By situating women as historical subjects, this study not only corrects past distortions but also paves the way for a more equitable and holistic Islamic discourse.

INTRODUCTION

Classical Islamic historiography, as a reflection of a rich intellectual civilization, has long been a domain dominated by masculine narratives [1], [2]. Within the framework of historical writing centered on male figures−whether as caliphs, scholars, or warriors−the roles of women are frequently marginalized, relegated to footnotes, or entirely overlooked. The presence of female figures such as Aisha bint Abu Bakr, the wife of Prophet Muhammad and a renowned hadith narrator [3], [4], and Fatima al-Fihri, the founder of Al-Qarawiyyin University in the 9th century, challenges the assumption that Islamic history can only be understood through a patriarchal lens [5], [6]. This study aims to deconstruct the entrenched masculine narratives in classical Islamic historiography by offering a reinterpretation of women's contributions, which are not only historically significant but also transformative in shaping Islamic epistemology and scholarly institutions. Far from merely filling narrative gaps, this study contests the methodological and ideological foundations that have long perpetuated masculine dominance in Islamic historical writing.

The theoretical foundation of this study is grounded in feminist approaches to historiography, as developed by scholars such as Gerda Lerner and Joan Wallach Scott. Lerner, in The Creation of Patriarchy, argues that patriarchy operates not only as a social structure but also as an epistemological framework that shapes how history is written and understood [7], [8]. Similarly, Scott (1988), in Gender and the Politics of History, expands this argument by emphasizing that gender is not merely a social category but a critical analytical tool for understanding power and knowledge [9], [10], [11]. In the Islamic context, this approach is enriched by Leila Ahmed's Women and Gender in Islam, which highlights how women's narratives in Islamic history are often sidelined due to patriarchal biases embedded in interpretive and historiographical traditions [12], [13], [14]. By adopting this framework, this study seeks to uncover the layers of marginalization that have obscured women's roles while repositioning them as active agents in the intellectual and social dynamics of classical Islam.

The social realities underscoring the urgency of this study are evident in the gender disparities within classical Islamic historiographical sources. Historical texts such as Tarikh al-Tabari by Abu Ja'far al-Tabari or al-Bidayah wa al-Nihayah by Ibn Kathir, while rich in chronological detail, tend to place women in subordinate or secondary roles [15], [16]. For instance, Aisha, despite being recognized as Umm al-Mu'minin and a primary source of hadith, is often depicted solely in domestic capacities or as a companion of the Prophet, rather than as an intellectual who shaped early Islamic scholarly traditions [17]. Yet, historical records indicate that Aisha narrated over 2,000 hadiths and served as a reference for companions on matters of law and theology after the Prophet's death [18], [19], [20]. Similarly, Fatima al-Fihri, who established Al-Qarawiyyin University in Fez, Morocco, in 859 CE, rarely receives attention commensurate with her male contemporaries in classical literature, despite her institution being one of the oldest centers of learning in the world [5], [6], [21]. This disparity is not coincidental but a reflection of social constructs that place intellectual and historical authority within the masculine domain.

Contemporary scholars have long critiqued gender bias in Islamic historiography. Fatima Mernissi (1991), in The Veil and the Male Elite, argues that the marginalization of women in Islamic narratives is not a product of the religion itself but of patriarchal interpretations by male elites in the formative periods of Islam [12], [22], [23]. Mernissi cites Aisha's extraordinary intellectual capacity, often diminished in historical narratives to reinforce male supremacy in public spaces. Similarly, Amina Wadud (1999), in Qur'an and Woman, asserts that the Qur'an does not inherently discriminate against women, but historical and interpretive traditions have sidelined their contributions to maintain masculine hegemony [24], [25]. This study extends these arguments by not only critiquing marginalization but also proposing a narrative reconstruction that positions women as equal historical subjects.

The novelty of this study lies in its systematic deconstructive approach to classical Islamic historiography, focusing on two representative yet rarely compared female figures: Aisha and Fatima al-Fihri. While previous studies have explored women's roles individually or in specific contexts−such as Aisha's contributions to hadith or Fatima al-Fihri's role in education−this study integrates both to demonstrate the continuity of women's contributions across generations and geographies. This approach enables a more holistic analysis of how women not only participated in but also shaped the intellectual and institutional landscape of classical Islam. Furthermore, by leveraging Western feminist theories adapted to the Islamic context, this study offers an innovative methodological synthesis, which has been underutilized in traditional Islamic historiographical studies [26], [27], [28], [29].

However, a significant research gap exists in the study of classical Islamic historiography concerning gender representation. Most contemporary studies on women in Islamic history focus on textual analyses of the Qur'an and hadith or on modern periods, such as 20th-century Islamic feminism [30], [31], [32], [33]. Classical historiography, as a primary corpus shaping the collective Muslim understanding of the past, is rarely examined through a critical gender lens. When women are discussed, the treatment is often descriptive, lacking in-depth efforts to deconstruct existing narratives or connect them to broader power structures [34]. Yet, classical historiography is not merely a record of events but an ideological tool reflecting the social and political dynamics of its time. This study addresses this gap by offering a critical analysis that links women's marginalization in historical texts to enduring patriarchal constructs.

The urgency of this study is particularly evident in the contemporary context, where discourses on women's roles in Islam remain a battleground of ideological contestation. On one hand, traditionalist narratives continue to confine women to domestic roles; on the other, progressive movements seek to reclaim women's agency through reinterpretation of Islamic sources. In this struggle, classical historiography is a crucial arena, as it shapes perceptions of the past while providing legitimacy for the present and future. By deconstructing masculine narratives in Islamic history, this study holds both academic and profound social relevance, offering a historical foundation for building a more inclusive understanding of Islam, where women are no longer positioned as mere auxiliaries but as architects of civilization.

Moreover, this study is relevant in the context of globalized knowledge production, where classical Islamic history is increasingly a subject of interdisciplinary study. Gender imbalances in historical narratives not only impoverish the understanding of Islam but also hinder cross-civilizational dialogues that demand fair and accurate representation. Figures like Fatima al-Fihri, whose institution predates European universities and stands as a testament to knowledge production, demonstrate that women in Islam have the capacity to pioneer fields traditionally dominated by men. Thus, deconstructing masculine narratives is not merely an academic critique but a strategic step toward restoring the historical dignity of women in global discourse.

This study aims not only to highlight the contributions of Aisha and Fatima al-Fihri but also to challenge the paradigms of classical Islamic historiography long confined within a masculine framework. By combining theoretical analysis, historical facts, and critique of gender bias, this study paves the way for a richer and more balanced understanding of Islamic history. In doing so, it affirms that women, far from being mere shadows in male narratives, are indispensable pillars in the construction of classical Islamic

civilization.

METHOD

This study employs a qualitative approach using textual and historical analysis methods grounded in deconstruction [35], as developed by Jacques Derrida, but adapted to the context of classical Islamic historiography [36], [37]. This approach was chosen to uncover implicit patriarchal assumptions within historical texts while enabling a reinterpretation of the roles of women marginalized in dominant narratives. Primary data were sourced from classical historiographical works, such as Tarikh al-Tabari by Abu Ja'far al-Tabari, al-Kamil fi al-Tarikh by Ibn al-Athir, and Siyar A'lam al-Nubala by al-Dhahabi, selected for their representativeness in early Islamic historical writing traditions. Additionally, biographical sources on Aisha and Fatima al-Fihri, including hadith narrations in Sahih Bukhari and Sahih Muslim as well as historical documents regarding the establishment of Al-Qarawiyyin University, were analyzed to unearth often-overlooked historical facts.

Data collection was conducted through a systematic literature review [38], [39], focusing on identifying narrative patterns that either highlight or obscure women's roles. The analysis involved three stages: first, textual analysis to identify gender bias in language and narrative structure; second, historical analysis to contextualize the contributions of Aisha and Fatima al-Fihri within the social and intellectual dynamics of their eras; and third, deconstruction to dismantle embedded gender hierarchies in the texts and propose alternative narratives. This approach was enriched by the historical feminist framework of Gerda Lerner and Leila Ahmed, enabling the study not only to describe but also to critique the masculine constructs within historiography [8], [14].

The validity of the findings was strengthened through source triangulation, comparing classical texts, contemporary secondary literature, and insights from scholars such as Fatima Mernissi and Amina Wadud. The study also accounted for limitations in accessing original Arabic sources, which were addressed by using credible translations and consulting experts in Islamic philology.

RESULTS

Deconstructing Masculine Bias in Classical Historiography: Narrative Patterns and the Marginalization of Women

Classical Islamic historiography, as a reflection of a brilliant intellectual civilization, harbors a fundamental flaw: the dominance of masculine narratives, which is not merely a habit but an epistemological strategy to exclude women from the historical canon [34], [40]. When Tarikh al-Tabari by Abu Ja'far al-Tabari, a monumental work in the Islamic historical writing tradition, is examined through a critical lens, a striking pattern emerges. Aisha bint Abu Bakr, documented in Sahih Bukhari and Sahih Muslim as the narrator of over 2,000 hadiths and a theological reference for senior companions, does not appear as an independent intellectual in this text [18], [20]. Instead, al-Tabari frames her within narratives fixated on domestic drama, such as the Hadith al-Ifk—the slander accusing her of adultery. The episode is recounted in exhaustive detail: Aisha's tears, the Prophet's emotional response, and the divine revelation that ultimately exonerates her [41], [42]. Yet, her capacity as a jurist who corrected companions like Umar ibn al-Khattab or as a reference in post-Prophetic jurisprudential debates? Silence. This omission is not mere oversight—it is deliberate marginalization, a maneuver to confine Aisha to the private sphere, far from the male-dominated public authority [43].

A similar pattern resonates in al-Kamil fi al-Tarikh by Ibn al-Athir, which meticulously chronicles major events but fails to capture the historical essence of Fatima al-Fihri. Al-Qarawiyyin University, founded in 859 CE in Fez, Morocco, is hailed as a magnificent center of knowledge [44], [45], [46], yet Ibn al-Athir never mentions Fatima as its mastermind. This institution, later recognized as one of the world's oldest universities, is reduced to an agentless artifact, as if it emerged without the vision of the woman who funded and designed it from her personal inheritance. Fatima's absence from the narrative is not a minor gap; it is systematic erasure, reflecting masculine anxiety toward women who encroach upon public and intellectual domains [34]. The language used in these texts reinforces this finding: terms like 'alim (scholar) or faqih (jurist) are implicitly associated with men, while women, when mentioned, are often tied to roles as companions or narrative embellishments [29], [47], [48], [49]. In Fatima's case, the total silence about her suggests that even monumental achievements were insufficient to breach the patriarchal walls erected by historians [21].

What, then, of Siyar A'lam al-Nubala by al-Dhahabi? Here, Aisha receives more attention than in al-Tabari's work, but the framing remains problematic. Al-Dhahabi praises Aisha's virtues as Umm al-Mu'minin, highlighting her brilliance in hadith narration, yet the narrative remains trapped in the glorification of her domestic role. She is depicted as a devoted wife, a mother to the ummah, and a living witness to the Prophet's life—noble attributes, but never stepping into the realm of intellectual autonomy. When al-Dhahabi notes that Aisha taught law to companions, the details feel like an accessory, not the core of her identity. Compare this to the treatment of male figures like Abu Hurairah, who, despite also being a hadith narrator, is granted narrative space to emerge as an independent authority with expanded analysis and influence. This disparity is not coincidental; it reflects a patriarchal logic that demands women, no matter how influential, remain in the shadow of idealized masculinity.

Further deconstruction reveals that masculine bias is not only about what is written but also what is concealed. In Tarikh al-Tabari, events like the Battle of the Camel—where Aisha led forces against Ali ibn Abi Thalib—are narrated with an ambiguous, almost accusatory tone [4], [50]. The focus is not on Aisha's political strategy or courage but on the emotional conflict and subsequent failure. This narrative not only diminishes her leadership capacity but also positions her as an antithesis to the masculine harmony represented by male caliphs. In contrast, when Ali or Umar face defeat, their losses are framed as heroic tragedies, not character flaws. This discrepancy demonstrates that classical historiography is not neutral; it is an ideological battlefield designed to uphold male supremacy, even at the expense of historical accuracy. Fatima al-Fihri, uninvolved in political conflict, is even more invisible in these texts, as if her peaceful achievement in education is deemed less worthy of record than male war epics [6].

The language used to describe women is often passive or ornamental—jamilah (beautiful), salihah (pious)—while men are associated with action and authority, such as qaid (leader) or mufassir (exegete) [51], [52]. In Aisha's case, although she was clearly a mufassir in practice—interpreting law and guiding the ummah—this label is never explicitly applied to her in classical historiography. For Fatima, the complete absence of description represents an even more extreme form of marginalization: she is given no space to be defined, positively or negatively. This lexical imbalance is not merely a stylistic choice; it is a tool to reinforce gender hierarchies, where even the most influential women are confined to narratives that never fully belong to them.

Historiographical Source	Representation of Aisha	Representation of Fatima al-Fihri	Identified Masculine Bias
Tarikh al-Tabari	Focus on Hadith al-Ifk and domestic role; intellectual authority ignored	Not mentioned at all	Women reduced to private sphere; public authority reserved for men
al-Kamil fi al-Tarikh	Minimal attention; focus on conflicts like the Battle of the Camel with a blaming tone	Al-Qarawiyyin mentioned without crediting Fatima	Total erasure of women as intellectual agents; male-centered narrative
Siyar A'lam al-Nubala	Praised as Umm al-Mu'minin, but focus on companion role, not intellectual	Not mentioned at all	Glorification of domesticity; women's authority subordinated to masculine shadow
al-Bidayah wa al-Nihayah	Emphasis on domestic jealousy; legal and political roles minimized	Not mentioned at all	Emotional narrative replaces historical agency; women erased from public sphere

These findings challenge the assumption that classical Islamic historiography is an objective reflection of the past. Instead, it is a highly selective construct shaped by social anxieties about women who transcend patriarchal boundaries. Aisha, with her intellectual prowess, and Fatima, with her revolutionary vision, posed threats to narratives that sought to position men as the sole architects of civilization. Their marginalization is not a result of insufficient evidence—hadith records and historical documents from Fez prove otherwise—but a deliberate choice to prioritize masculine power [53], [54]. When al-Bidayah wa al-Nihayah by Ibn Kathir mentions Aisha, the focus is again on household matters, such as jealousy among the Prophet's wives, rather than her role as a political advisor or legal scholar. Fatima? Once more, she vanishes from the record, as if the founding of Al-Qarawiyyin were a miracle without an agent.

The implications of these patterns extend far beyond the texts themselves. Classical historiography does not merely document history; it shapes the collective Muslim perception of identity and authority. By excluding women from the main narrative, these texts create an illusion that Islamic civilization is an exclusively masculine product—an illusion that continues to echo in contemporary traditionalist discourses. Yet, historical truth refuses to be fully submerged. Surviving evidence in hadiths and local records about Al-Qarawiyyin demonstrates that women like Aisha and Fatima were not only present but central [21], [55]. Denying their agency is a distortion that not only harms history but also undermines the epistemological potential of Islam as an inclusive tradition. These masculine narratives, for all their sophistication and elegance, are fragile—and this deconstruction is the first strike to dismantle them.

Aisha and Fatima al-Fihri as Transformative Agents: Reinterpreting Historical Contributions

Classical Islamic historiography, for all its grandeur, has long turned a blind eye to an undeniable reality: women like Aisha bint Abu Bakr and Fatima al-Fihri were not mere silent witnesses to history but architects who shaped the intellectual and institutional foundations of Islamic civilization. When Sahih Bukhari and Sahih Muslim are examined, Aisha emerges as more than a hadith narrator; she was a critical mind who corrected errors and guided the ummah through the complexities of law and theology [20]. A striking moment is when she reprimanded Abu Hurairah for a misreported hadith about prayer times, firmly stating that the Prophet never prohibited prayer after Asr except at specific times—a correction that not only showcased her sharp memory but also her authority to challenge senior companions [56]. This was no isolated incident. Records show that Umar ibn al-Khattab, the revered caliph, sought Aisha's clarification on inheritance law, evidence that she was not a mere narrative accessory but an epistemological pillar upholding early Islamic scholarly traditions. This reinterpretation shakes the assumption that intellectual roles in Islam were exclusively male domains—Aisha was a living testament that women could be mujtahids, even if historians never formally bestowed that title upon her.

While Aisha exerted her influence in Medina, centuries later, Fatima al-Fihri left her mark in Fez, Morocco, in an equally revolutionary way. The founding of Al-Qarawiyyin University in 859 CE was not merely an act of philanthropy; it was a woman's vision that recognized education as the heartbeat of civilization. Fragmentary local historical documents reveal that Fatima not only invested her family's inheritance but also oversaw construction and designed an initial curriculum encompassing both religious and secular sciences—mathematics, astronomy, and exegesis—a holistic approach that predated European universities by centuries. This institution became a magnet for scholars like Ibn Khaldun and Abu al-Hasan al-Ash'ari, yet ironically, Fatima's name is rarely mentioned in narratives extolling Al-Qarawiyyin's glory. Her boldness in stepping into the public sphere, a domain traditionally claimed by men, demonstrates that women in classical Islam could not only survive within patriarchal systems but also dismantle them with enduring achievements. Reinterpreting her role proves she was not a passive founder; she was an innovator who laid the cornerstone for the Islamic tradition of higher education.

Aisha's strength lay in her mastery and dissemination of oral knowledge in a nascent society, while Fatima offered a physical manifestation of that intellectual ambition through an institution that endures to this day. In-depth analysis of Musnad Ahmad reveals that Aisha did not merely narrate hadiths but provided contextual interpretations that enriched the ummah's understanding. For instance, in a narration about the punishment for adultery, she emphasized the need for empirical evidence—four witnesses—a stance reflecting her analytical acumen in upholding justice. This was not mere reporting; it was ijtihad in its purest form, requiring profound understanding of texts and social realities. Conversely, Fatima al-Fihri demonstrated a different strategic capacity. Records from Moroccan historians like Ibn Abi Zar indicate she managed resources meticulously, ensuring Al-Qarawiyyin was not just a mosque but a sustainable center of learning. Her choice of Fez, a thriving trade hub, reflects sharp geopolitical awareness—she understood that knowledge must be rooted in economic and cultural connectivity.

Viewing the two comparatively reveals a remarkable continuity in women's roles as transformative agents. Aisha laid the groundwork for Islamic epistemology through her authority in hadith and law, an invaluable legacy in shaping the ummah's scholarly identity. She was not merely a transmitter; she was a filter ensuring the integrity of the oral tradition, a role often overshadowed by male figures like Imam Malik or al-Bukhari. Fatima, in her own way, immortalized that spirit in an institution that became a symbol of Islam's intellectual resilience. Al-Qarawiyyin was not just a building; it was a statement that women could create permanent spaces for knowledge, defying the gender constraints imposed by

their society. These two figures, though separated by time and geography, demonstrate that women's contributions were not sporadic—they were a consistent current flowing through the arteries of Islamic civilization, often concealed by dominant masculine narratives.

Yet, their greatness extends beyond individual achievements; their impact reverberates into broader social and political spheres. In Aisha's case, her role in the Battle of the Camel—though controversial—demonstrates her courage to engage in power dynamics during the transitional post-first caliphate period. Tarikh al-Tabari may frame it as a failure, but modern reinterpretations see it as evidence of extraordinary political capacity. She mobilized forces, negotiated with companions, and took risks unmatched by most men of her time. This was not mere personal ambition; it was an effort to defend her vision of Islam, placing her on par with male caliphs in courage and strategy. Fatima, though not engaged in armed conflict, offered an equally radical transformation. By founding Al-Qarawiyyin [21], she created a safe space for intellectual discourse amidst a world rife with war and political instability—a move demonstrating that women's power could be constructive, not merely reactive. Its social impact endured for centuries, as the institution became a knowledge hub producing great thinkers.

This reinterpretation is not mere historical romanticism; it is grounded in robust evidence and challenges traditional narratives that diminish women as secondary actors. In Sahih Muslim, Aisha is depicted teaching a group of companions at her home, a scene rarely highlighted in classical historiography but evidence that she was an intellectual gravitational center of her time [4]. She did not merely relay what she heard from the Prophet; she analyzed, compared, and concluded—hallmarks of a true scholar. For Fatima, Fez archives cited by historians like al-Maqrizi suggest she collaborated with architects and scholars to design Al-Qarawiyyin, a process requiring managerial skill and long-term vision [5], [57]. This was not a spontaneous act; it was a carefully planned project, demonstrating that women in classical Islam had the capacity for systemic and strategic thinking, far beyond the domestic stereotypes imposed by classical texts.

This argument reaches its zenith when we realize that Aisha and Fatima's contributions were not only equal but, in some ways, surpassed those of oft-celebrated male figures. Al-Ghazali, for instance, is hailed as Hujjat al-Islam for his work in philosophy and theology, yet Aisha laid the groundwork for such thought through hadiths that served as primary sources for scholars like al-Ghazali [58], [59]. Similarly, al-Tabari wrote monumental history, but Fatima built an institution that produced history itself. This comparison is not to diminish men but to show that narratives sidelining women oversimplify the complexity of Islamic civilization. They were transformative agents who not only participated but also altered the course of history—and acknowledging this is the first step toward correcting long-entrenched distortions.

Figure	Main Contribution	Historical Evidence	Transformative Impact
Aisha	Narration and analysis of hadith; authority in law and theology; political leadership in the Battle of the Camel	*Sahih Bukhari, Sahih Muslim, Musnad Ahmad*; references by companions like Umar	Foundation of Islamic epistemology through hadith; influence on early Islamic law and politics
Fatima al-Fihri	Founding of Al-Qarawiyyin University; vision for inclusive education	Fez documents, Ibn Abi Zar's records, al-Maqrizi's references	First higher education institution in the world; knowledge hub influencing thinkers like Ibn Khaldun

The table above summarizes key findings in a structured manner, but the analysis delves deeper to bolster the argument. The Main Contribution column shows that Aisha and Fatima operated in different realms—oral and epistemological for Aisha, physical and institutional for Fatima—yet their impacts were complementary. Aisha, with her mastery of hadith and law, created the knowledge framework that underpinned early Islam, while Fatima solidified that framework in an institution that enabled knowledge to flourish across generations. Historical Evidence confirms their contributions are not speculative; Sahih Bukhari and Sahih Muslim are indisputable primary sources for Aisha, while Fez documents provide archaeological legitimacy for Fatima. Yet, the disparity in representation within classical historiography—such as Fatima's absence from mainstream texts—signals a systematic bias that deliberately obscures them.

The Transformative Impact column is the core of this reinterpretation. Aisha did not merely transmit hadiths; she shaped how the ummah understood religion through corrections and interpretations, a process that positions her as a founder of Islamic epistemology alongside figures like al-Shafi'i. Fatima, with Al-Qarawiyyin, surpassed her contemporaries by creating a holistic educational model, an achievement unmatched by male caliphs or scholars of her era. The table's analysis reveals their impacts as complementary: Aisha built knowledge, Fatima institutionalized it—two sides of the same coin long separated by masculine narratives. This table is not just a summary; it is a roadmap for understanding how women, far from mere auxiliaries, were driving forces in classical Islamic civilization.

Toward an Inclusive Historiography: Implications and Reconstruction of Classical Islamic Narratives

For centuries, classical Islamic historiography has stood as a magnificent yet flawed intellectual monument—a narrative built on fragile masculine foundations that relegate women like Aisha and Fatima al-Fihri to narrative obscurity. These findings are not merely a critique of ancient texts; they are a call to dismantle those ideological walls and rebuild a history that reflects the true complexity of Islamic civilization. By restoring Aisha to her rightful place as an architect of early epistemology—whose hadiths formed the backbone of law and theology—and Fatima as a pioneer of higher education through Al-Qarawiyyin, we do more than fill gaps; we challenge a paradigm that has long treated women as mere auxiliaries. This reconstruction begins with acknowledging that Tarikh al-Tabari or al-Kamil fi al-Tarikh are not objective mirrors of the past; they are patriarchal filters that chose to immortalize men as sole heroes, while women, despite their central roles, were diminished or erased. The inclusive narrative proposed here demands more than adding names; it requires a methodological shift that positions gender as a critical lens, not a marginal note.

The implications of this reconstruction extend beyond academia, striking at the heart of contemporary discourses about Islam. In an era where Islam is often misunderstood as monolithic and patriarchal—by external critics and internal traditionalists alike—recognizing the transformative roles of women like Aisha and Fatima offers a powerful counter-narrative. Aisha, with her authority in hadith, was not merely the Prophet's wife; she was a scholar who shaped the scholarly discourse underpinning jurisprudential schools. When Sahih Bukhari records her challenging other companions' interpretations, we see an independent thinker unafraid to correct errors, a quality often attributed to figures like Imam Ahmad or al-Shafi'i but rarely to women. Fatima, on the other hand, with Al-Qarawiyyin, proved that women could create enduring physical legacies, challenging stereotypes that women's contributions are fleeting or domestic. This inclusive narrative not

only enriches history but also provides historical legitimacy for gender equality movements in modern Islam, often dismissed as Western imports despite their roots in Islam's early centuries.

Furthermore, this reconstruction has profound epistemological implications. Classical historiography, with its masculine bias, has impoverished the collective understanding of Islamic civilization's dynamics. When Siyar A'lam al-Nubala praises Aisha as Umm al-Mu'minin but overlooks her role as a legal teacher, or when al-Bidayah wa al-Nihayah omits Fatima entirely, we lose half the story—the half that reveals Islam was not built by men alone but through complex cross-gender collaboration. By integrating women into the main narrative, we not only correct historical injustices but also expand the horizons of knowledge. For instance, recognizing Aisha as a true mufassir—evidenced by her empirical approach to interpreting laws on adultery—reveals the Islamic exegetical tradition as more inclusive and diverse from its inception. Similarly, positioning Fatima as the founder of higher education highlights that the concept of the university in Islam predated the West, not by chance, but through a woman's forward-thinking vision. This is a shift from a narrow to a holistic history.

In a global context, this inclusive narrative holds undeniable relevance. Classical Islamic history is now a subject of interdisciplinary study, from Western historians to anthropologists, and gender imbalances in ancient texts are often weaponized to stereotype Islam as a tradition that oppresses women. Highlighting Aisha and Fatima not only refutes this narrative but also offers a nuanced perspective for cross-civilizational dialogue. Al-Qarawiyyin, for example, stands as proof that women in classical Islam contributed to global knowledge production long before the European Renaissance, a fact often lost in Eurocentric discourses. Aisha, with her influence on hadith, demonstrates that women shaped religious canons bridging East and West. This reconstruction is not just an academic correction; it is an intellectual weapon to reshape global perceptions of Islam, presenting it as a dynamic and egalitarian tradition, not the static and patriarchal one often portrayed.

However, this reconstruction is not without challenges. Classical historiography is so deeply entrenched in Muslim consciousness that changing it requires more than textual arguments—it demands a methodological revolution. Traditional approaches relying on chronology and male authority must be replaced with gender-sensitive methods that view women not as anomalies but as integral to the narrative. This means rereading sources like Musnad Ahmad to uncover hidden evidence of Aisha as a teacher or scouring Fez's local archives to reconstruct Fatima's role behind Al-Qarawiyyin. Another challenge is resistance from traditionalists who may perceive this effort as a threat to established canons. Yet, herein lies its urgency: the canon itself is a human construct, not divine revelation, and thus open to critique and refinement. By adopting a feminist lens tailored to the Islamic context—as proposed by Leila Ahmed or Fatima Mernissi—we can dismantle the layers of bias that have shackled history for centuries.

The social implications of this inclusive narrative are equally significant. In modern Muslim communities, where women are often caught between conservative narratives that restrict and progressive ones sometimes detached from historical roots, this reconstruction offers a middle path. Aisha and Fatima are not symbols of Western feminism; they are proof that classical Islam already had empowered female models. When Aisha led forces in the Battle of the Camel, she showed women could engage in politics without compromising religious identity. When Fatima founded Al-Qarawiyyin, she proved women could contribute to public spaces without violating Islamic values. This narrative provides a historical foundation for contemporary Muslim women to claim their rights,

not as something new but as a continuation of an existing legacy. It is a bridge between past and present, enabling Islam to remain relevant amid modernity's challenges.

Ultimately, this reconstruction is about justice—justice to history, to women, and to Islam itself. By positioning Aisha and Fatima as narrative pillars, we not only restore their dignity but also correct distortions that have marred the understanding of Islamic civilization. This is not mere rewriting; it is an acknowledgment that a just history is a complete one. If Tarikh al-Tabari were rewritten today, Aisha would emerge as a scholar on par with male companions, and Fatima would stand as the founder of an institution that reshaped global education. This inclusive narrative is not a utopia; it is a long-overdue reality waiting to be unveiled and revived. With every step toward this reconstruction, we not only mend the past but also open doors to a more inclusive future, where Islam can be seen as it truly is: a tradition built by men and women together.

Reconstruction Aspect	Key Findings	Main Implications	Implementation Challenges
Aisha's Position	True scholar and *mufassir*; influence on hadith and law	Historical legitimacy for women's scholarly authority; expands exegetical tradition	Traditionalist resistance to reinterpreting canon; limited narrative in classical texts
Fatima al-Fihri's Position	Pioneer of higher education; founder of Al-Qarawiyyin as a global institution	Evidence of women's contributions to global knowledge; counters patriarchal stereotypes	Scarcity of direct primary sources; dominance of masculine narratives in historiography
Inclusive Methodology	Gender-sensitive approach; integration of women as historical subjects	Holistic understanding of Islamic civilization; nuanced cross-civilizational dialogue	Need for methodological revolution; rejection by established traditional approaches
Social-Contemporary Implications	Historical foundation for gender equality in modern Islam	Bridge between tradition and modernity; empowerment of contemporary Muslim women	Conflict between conservative and progressive narratives; risk of misinterpretation as Western feminism

The table above systematically summarizes the core of the inclusive narrative reconstruction, but the analysis deepens the argument to highlight the complexity and urgency of the findings. The Key Findings column establishes Aisha and Fatima as historical subjects equal to male figures: Aisha was not just a narrator but a critical thinker shaping Islamic epistemology, while Fatima was an innovator creating an educational institution with global impact. The difference in their domains—oral for Aisha, physical for Fatima—reveals the diversity of women's contributions, long obscured by masculine narratives. The Main Implications column underscores that this recognition not only corrects history but also holds transformative power: for Aisha, it expands the canon of exegesis and law with female perspectives; for Fatima, it challenges assumptions that scientific progress was a male domain. These implications are dual—academic and social—creating a narrative relevant to both historical studies and contemporary discourses.

The Implementation Challenges column acknowledges that this reconstruction faces obstacles. Resistance from traditionalists to reinterpreting Aisha as a mufassir reflects emotional ties to old canons, while the scarcity of direct sources on Fatima reveals how effectively classical historiography erased women from records. The Inclusive Methodology is the technical

backbone of this endeavor but requires a paradigm shift that traditional chronological approaches may resist. The Social-Contemporary Implications are the culmination: this narrative is not just about the past but about empowering today's Muslim women with legitimate historical roots. The table's analysis reveals that each reconstruction aspect is interconnected—Aisha and Fatima are the foundation, methodology is the tool, and social implications are the ultimate goal. This table is not merely a summary; it is a visual manifesto for a fairer historiography, demonstrating that inclusivity is not just possible but essential for understanding Islam in its entirety.

CONCLUSION

This study reveals that classical Islamic historiography, despite its rich chronological detail, has been marred by systematic masculine bias, sidelining women like Aisha bint Abu Bakr and Fatima al-Fihri from central roles in historical narratives. In-depth analysis of texts such as Tarikh al-Tabari, al-Kamil fi al-Tarikh, and Siyar A'lam al-Nubala demonstrates that Aisha, with her authority in hadith and law, was reduced to a domestic figure, while Fatima, the founder of Al-Qarawiyyin University, was entirely erased from records, despite her legacy shaping global higher education. This deconstruction proves that such marginalization was not mere oversight but an epistemological strategy to uphold patriarchal hegemony, creating the illusion that Islamic civilization was an exclusively male product.

Reinterpreting these two figures affirms their roles as transformative agents: Aisha laid the foundation of Islamic epistemology through hadith analysis and ijtihad, while Fatima institutionalized knowledge with a vision that transcended her era. Their contributions were not only equal but, in some respects, surpassed those of oft-celebrated male figures, challenging traditional narratives that marginalized them. Thus, reconstructing an inclusive narrative becomes imperative—not merely to correct history but to enrich the understanding of Islam as a dynamic and egalitarian tradition. The implications extend from academic to social realms, providing historical legitimacy for gender equality in modern Islam and offering fresh perspectives for cross-civilizational dialogue.

This study concludes that classical Islamic historiography must be revised through a critical gender lens, positioning women as integral historical subjects. Aisha and Fatima are not exceptions; they are evidence that women have been pillars of Islamic civilization from the outset. As such, an inclusive narrative is not just justice for the past but also the key to a relevant and equitable future for Islam..

REFERENCES

[1] G. Darzi, A. Ahmadvand, and M. Nushi, "Revealing gender discourses in the qur'ān: An integrative, dynamic and complex approach," HTS Teol. Stud. / Theol. Stud., vol. 77, no. 4, pp. 1–11, 2021, doi: 10.4102/hts.v77i4.6228.

[2] L. Ouzgane, Islamic masculinities. 2008. [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85187610233&partnerID=40&md5=13f8ec96edbfb07efe3a53fa929a759b

[3] A. Sayeed, Women and the transmission of religious knowledge in Islam. 2010. doi: 10.1017/CBO9781139381871.

[4] Ö. Sabuncu, "The life of 'A'isha bt. Abi Bakr, personality and her place in Islamic history," Cumhur. Ilah. Derg., vol. 21, no. 3, pp. 2103–2105, 2017, [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85045752471&partnerID=40&md5=0d3a8362b30c06fd20b0d3859e9903cd

[5] G. Hardaker and A. A. Sabki, "An insight into Islamic pedagogy at the University of al-Qarawiyyin," Multicult. Educ. Technol. J., vol. 6, no. 2, pp. 106–110, 2012, doi: 10.1108/17504971211236308.

[6] F. F. Cengic, "Fatima Al Fihri Founder of the First World University," Stud. Media Commun., vol. 8, no. 2, pp. 14–20, 2020, doi: 10.11114/smc.v8i2.4903.

[7] P. Miller, Patriarchy. 2017. doi: 10.4324/9781315532370.

[8] G. Gangoli, "Understanding patriarchy, past and present: Critical reflections on gerda lerner (1987), the creation of patriarchy, oxford university press," J. Gender-Based Violence, vol. 1, no. 1, pp. 127–134, 2017, doi: 10.1332/239868017X14907152523430.

[9] J. W. Scott, Sex and Secularism. 2017. [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85199492691&partnerID=40&md5=19cdced84a934a80e3e21925eddb44ea

[10] H. M. Stur, "Gender and sexuality," in The Routledge History of Global War and Society, 2018, pp. 285–295. doi: 10.4324/9781315725192.

[11] P. Zazueta and E. Stockland, Gender and the politics of history. 2017. doi: 10.4324/9781912281633.

[12] J. M. Salem, "Women in Islam: Changing interpretations," Int. J. Humanit., vol. 9, no. 12, pp. 77–91, 2013, [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-84876536087&partnerID=40&md5=a9790d3d1e93774f9066198b81633aae

[13] L. Ahmed and K. Ali, Women and gender in islam: Historical roots of a modern debate. 2021. [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85103684548&partnerID=40&md5=edb18e31a7693bc690b2d899db100508

[14] C. B. S. Strobel, "Different Foundations for Islamic Feminisms: Comparing Genealogical and Textual Approaches in Ahmed and Parvez," in Globalizing Political Theory, 2022, pp. 60–68. doi: 10.4324/9781003221708-9.

[15] A. Moghadam and T. Lovat, Power-Knowledge in Tabari's «Histoire» of Islam: Politicizing the past in Medieval Islamic Historiography. 2019. doi: 10.3726/b15567.

[16] A. Moghadam and T. Lovat, "On the Significance of Histoire: Employing Modern Narrative Theory in Analysis of Tabari's Historiography of Islam's Foundations," in Education, Religion, and Ethics - a Scholarly Collection, 2023, pp. 173–183. doi: 10.1007/978-3-031-24719-4_12.

[17] S. Syamsiyatun, "Redefining Manhood and Womanhood: Insights from the Oldest Indonesian Muslim Women Organization, 'Aisyiyah," Stud. Islam., vol. 29, no. 3, pp. 547–573, 2023, doi: 10.36712/sdi.v29i3.23455.

[18] M. Mehfooz, "Women and hadith transmission: Prolific role of Aisha in validation and impugnment of prophetic traditions," AlBayan, vol. 19, no. 2, pp. 200–227, 2021, doi: 10.1163/22321969-12340099.

[19] F. Harpci, "'Ā'isha, mother of the faithful: The prototype of Muslim women Ulama," Al-Jami'ah, vol. 53, no. 1, pp. 159–179, 2015, doi: 10.14421/ajis.2015.531.159-179.

[20] S. Rehman, Gendering the hadith tradition: Recentring the authority of Aisha, mother of the believers. 2024. doi: 10.1093/oso/9780192865984.001.0001.

[21] S. Ahmed, "Learned women: three generations of female Islamic scholarship in Morocco," J. North African Stud., vol. 21, no. 3, pp. 470–484, 2016, doi: 10.1080/13629387.2016.1158110.

[22] R. Barlow and S. Akbarzadeh, "Women's rights in the muslim world: Reform or reconstruction?," Third World Q., vol. 27, no. 8, pp. 1481–1494, 2006, doi: 10.1080/01436590601027321.

[23] K. Karoui, "Rereading of the classical Islamic heritage for a contemporary grammar of justice: The works of Fatima Mernissi and Mohammed Arkoun," Dtsch. Z. Philos., vol. 68, no. 6, pp. 914–927, 2020, doi: 10.1515/dzph-2020-0062.

[24] A. Bakar, "Women on the Text According to Amina Wadud Muhsin in Qur'an and Women," Al-Ihkam J. Huk. dan Pranata Sos., vol. 13, no. 1, pp. 167–186, 2018, doi: 10.19105/al-lhkam.v13i1.1467.

[25] F. Zenrif and S. Bachri, "Critical Study of Amina Wadud's Thought in the Issue of Inheritance," Jure J. Huk. dan Syar'iah, vol. 15, no. 1, pp. 39–53, 2023, doi: 10.18860/j-

[26] D. D. Zimmerman, "Young Muslim women in the United States: identities at the intersection of group membership and multiple individualities," *Soc. Identities*, vol. 20, no. 4–5, pp. 299–313, 2014, doi: 10.1080/13504630.2014.997202.

[27] M. A. Ismail, "A comparative study of Islamic feminist and traditional Shi'i approaches to Qur'anic exegesis," *J. Shi'a Islam. Stud.*, vol. 9, no. 2, pp. 166–195, 2016, doi: 10.1353/isl.2016.0014.

[28] F. Ahmadi, "Islamic feminism in Iran: Feminism in a new Islamic context," *J. Fem. Stud. Relig.*, vol. 22, no. 2, pp. 33–53, 2006, doi: 10.2979/FSR.2006.22.2.33.

[29] M. Bakhshizadeh, "A Social Psychological Critique on Islamic Feminism," *Religions*, vol. 14, no. 2, 2023, doi: 10.3390/rel14020202.

[30] K. Bauer, *Gender hierarchy in the Qur'ān: Medieval interpretations, modern responses*. 2015. doi: 10.1017/9781139649759.

[31] J. Akhtar, "Social Justice and Equality in the Qur'ān: Implications for Global Peace," *Unity and Dialogue*, vol. 79, no. 1, pp. 23–45, 2024, doi: 10.34291/Edinost/79/01/Akhtar.

[32] D. Rizal and D. Putri, "Reinterpreting Religious Texts on Gender Equality: The Perspective of Ahmad Syafii Maarif," *Juris J. Ilm. Syariah*, vol. 23, no. 2, pp. 327–336, 2024, doi: 10.31958/juris.v23i2.10233.

[33] T. Štojs, "Some aspects of the position of women in Islam," *Obnovljeni Živ.*, vol. 67, no. 2, pp. 179–194, 2012, [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-84873111735&partnerID=40&md5=54872179ba9955f7b9b45babb9b200cf

[34] F. Shahin, "Islamic Feminism and Hegemonic Discourses on Faith and Gender in Islam," *Int. J. Islam Asia*, vol. 1, no. 1, pp. 27–48, 2020, doi: 10.1163/25899996-01010003.

[35] M. J. Carrera-Fernández, J. Guàrdia-Olmos, and M. Peró-Cebollero, "Qualitative research in psychology: Misunderstandings about textual analysis," *Qual. Quant.*, vol. 47, no. 3, pp. 1589–1603, 2013, doi: 10.1007/s11135-011-9611-1.

[36] J. Kates, *Deconstruction: "History, if there is history."* 2021. doi: 10.4324/9780367821814-23.

[37] M. Mason, "Historiospectography? Sande Cohen on Derrida's Specters of Marx," *Rethink. Hist.*, vol. 12, no. 4, pp. 483–514, 2008, doi: 10.1080/13642520802439723.

[38] J. O. Shanahan, *Literature Reviews*. 2024. doi: 10.4324/9781003436287-2.

[39] M. Hayford and J. O. Shanahan, *Literature reviews*. 2021.

[40] B. Boloix-Gallardo, "Beyond the Haram: Ibn al-Khatib and his privileged knowledge of Royal Nasrid women," *Mediev. Encount.*, vol. 20, no. 4–5, pp. 383–402, 2014, doi: 10.1163/15700674-12342180.

[41] O. Israfi, "Penafsiran Ibnu Jarir Al-Thabari dan Muhammad Quraish Shihab terhadap Lafadz al-Ṭhayibât dan al-Khâbisâth dalam Surat al-Nur Ayat 26," Universitas Islam Negeri Ar-Raniry, 2023. [Online]. Available: https://repository.ar-raniry.ac.id/id/eprint/36616/

[42] I. A. Idris, *Klarifikasi Al-Quran Atas Berita Hoaks*. Jakarta: PT Alex Media Komputindo, 2018.

[43] I. Itrayuni, A. Ashadi, and F. Faizin, "Kontekstualisasi Surah al-Nūr Ayat 11-20 Pada Open Journal System Indonesia Kontemporer," *Mashdar J. Stud. Al-Qur'an dan Hadis*, vol. 4, no. 1, pp. 19–34, 2022, doi: 10.15548/mashdar.v4i1.4619.

[44] L. Rahbari, "'mother of her father': Fatima-zahra's maternal legacy in shi'a islam," *J. Shi'a Islam. Stud.*, vol. 11, no. 1, pp. 23–41, 2018, doi: 10.1353/isl.2018.0004.

[45] Z. S. Kaynamazoğlu, "Ayyam-e Fatimiyya as an Alternative 'Ashura': The Mourning of Fatima in Modern Iran | Alternatif Bir 'Âşûrâ Olarak Eyyâm-i Fâtimiyye: Modern Iran'da Hz. Fâtima'nin Matemi," *Islam Tetkikleri Derg.*, vol. 14, no. 1, pp. 229–248, 2024, doi: 10.26650/iuitd.2024.1398696.

[46] A. Simon, *The florentine union and the late medieval Habsburgs in Transylvania on the eve of the first world war: On the institutional and scholarly impact of Augustin Bunea*. 2023.

[47] R. Roded, "Human Creation in the Hebrew Bible and the Qur'an – Feminist Exegesis," *Relig. Compass*, vol. 6, no. 5, pp. 277–286, 2012, doi: 10.1111/j.1749-8171.2012.00352.x.

[48] I. Ahmad, *Cracks in the 'mightiest fortress': Jamaat-e-Islami's changing discourse on women*. 2011. doi: 10.1017/CBO9781139382786.013.

[49] A. King, "Islam, women and violence," *Fem. Theol.*, vol. 17, no. 3, pp. 292–328, 2009, doi: 10.1177/0966735009102361.

[50] M. Yüksel, "Some Findings Regarding the Chain of Narrators (Sanad) and Textual Content (Matn) Evaluation of the Reports About the Barking of Hawaab Dogs," *Cumhur. Ilah. Derg.*, vol. 25, no. 1, pp. 5–21, 2021, doi: 10.18505/cuid.851782.

[51] H. Gürkan and A. Serttaş, "Beauty Standard Perception of Women: A Reception Study Based on Foucault's Truth Relations and Truth Games," *Inf. Media*, vol. 96, pp. 21–39, 2023, doi: 10.15388/IM.2023.96.64.

[52] A. C. P. Junqueira, T. L. Tylka, S. D. S. Almeida, T. M. B. Costa, and M. F. Laus, "Translation and Validation of the Brazilian Portuguese Version of the Broad Conceptualization of Beauty Scale With Brazilian Women," *Psychol. Women Q.*, vol. 45, no. 3, pp. 351–371, 2021, doi: 10.1177/03616843211013459.

[53] H. French and M. Rothery, "Hegemonic Masculinities? Assessing Change and Processes of Change in Elite Masculinity, 1700–1900," in *Genders and Sexualities in History*, 2011, pp. 139–166. doi: 10.1057/9780230307254_8.

[54] C. T. Benchekroun, "The Idrisids: History against its history," *Al-Masaq J. Mediev. Mediterr.*, vol. 23, no. 3, pp. 171–188, 2011, doi: 10.1080/09503110.2011.617063.

[55] L. Skogstrand, *Warriors and other men: Notions of masculinity from the late bronze age to the early iron age in scandinavia*. 2016. doi: 10.2307/j.ctv1pzk27z.

[56] I. Erwani and A. S. Siregar, "The Role of Women in Islamic Sacred Texts: A Critical Study of Women's Narratives and Authority in Islamic Tradition," *Pharos J. Theol.*, vol. 106, no. 1, pp. 1–14, 2025, doi: 10.46222/PHAROSJOT.106.6.

[57] Í. Almela, "MONUMENTAL ARCHITECTURE FOR HYGIENE AND PURIFICATION: TWO ABLUTION HALLS FROM THE ALMOHAD PERIOD IN FEZ (MOROCCO)," *Anu. Estud. Mediev.*, vol. 54, no. 2, 2024, doi: 10.3989/aem.2024.54.2.1392.

[58] F. Griffel, *Al-Ghazali's Philosophical Theology*. 2009. doi: 10.1093/acprof:oso/9780195331622.001.0001.

[59] J. Erasmus, "Al-Ghazālī's Kalām Cosmological Argument," in *Sophia Studies in Cross-cultural Philosophy of Traditions and Cultures*, vol. 25, 2018, pp. 53–64. doi: 10.1007/978-3-319-73438-5_4.

Research Artide

Analysis of Islamic Education Teachers' Soft Skills in Managing Students' Mental Health and Emotional Development at SMAS Adabiah Padang.

Syaiful Islami,[1] **Rahmi,**[2] **Julhadi,**[3]
[1,] Universitas Muhammadiyah Sumatera Barat
[2,] Universitas Muhammadiyah Sumatera Barat
[3,] Universitas Muhammadiyah Sumatera Barat

ABSTRAK: Masalah kesehatan mental dan perkembangan emosional siswa telah menjadi perhatian global, dengan meningkatnya kasus kecemasan, depresi, dan masalah perilaku yang memengaruhi kinerja akademik dan kesejahteraan siswa. Tantangan ini diperparah oleh kurangnya kesiapan guru dalam menangani masalah tersebut, khususnya dalam konteks pendidikan Islam. Penelitian ini bertujuan untuk menganalisis soft skill guru Pendidikan Agama Islam (PAI) di SMAS Adabiah Padang dalam mengelola kesehatan mental dan perkembangan emosional siswa. Menggunakan pendekatan studi kasus kualitatif, data dikumpulkan melalui wawancara mendalam, observasi kelas, dan analisis dokumen yang melibatkan guru PAI dan siswa. Temuan penelitian mengungkapkan bahwa guru menggunakan soft skill seperti empati, komunikasi efektif, dan kecerdasan emosional untuk mengidentifikasi dan menangani masalah kesehatan mental siswa. Namun, penelitian ini juga menyoroti kesenjangan dalam pelatihan dan sumber daya guru, yang membatasi kemampuan mereka dalam memberikan dukungan yang komprehensif. Penelitian ini menyimpulkan bahwa peningkatan soft skill guru PAI melalui program pengembangan profesional yang terarah sangat penting untuk mendukung kesejahteraan mental dan emosional siswa. Salah satu keterbatasan penelitian ini adalah fokusnya pada satu institusi, yang dapat memengaruhi generalisasi hasil. Meskipun demikian, penelitian ini memberikan wawasan berharga untuk meningkatkan pelatihan guru dan mengatasi tantangan kesehatan mental di lingkungan pendidikan Islam.

ABSTRACT: Mental health and emotional development issues among students have become a global concern, with rising cases of anxiety, depression, and behavioral problems affecting academic performance and well-being. These challenges are exacerbated by the lack of adequate teacher preparedness in addressing such issues, particularly in Islamic education contexts. This study aims to analyze the soft skills of Islamic Education (PAI) teachers at SMAS Adabiah Padang in managing students' mental health and emotional development. Using a qualitative case study approach, data were collected through in-depth interviews, classroom observations, and document analysis involving PAI teachers and students. The findings reveal that teachers employ soft skills such as empathy, effective communication, and emotional intelligence to identify and address students' mental health issues. However, the study also highlights gaps in teachers' training and resources, limiting their ability to provide comprehensive support. The research concludes that enhancing PAI teachers' soft skills through targeted professional development programs is crucial for fostering students' mental and emotional well-being. A key limitation of this study is its focus on a single institution, which may affect the generalizability of the results. Nonetheless, it provides valuable insights for improving teacher training and addressing mental health challenges in Islamic educational settings.
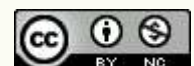
INTRODUCTION

The role of teachers, particularly Islamic Religious Education (PAI) teachers, extends beyond the mere transmission of religious knowledge. In the contemporary educational landscape, PAI teachers are increasingly expected to address the holistic development of students, including their mental health and emotional well-being [1], [2]. This is especially relevant in the context of Senior High Schools (SMAs), where students undergo significant psychological and emotional changes. At SMA Adabiah Padang, a school known for its emphasis on integrating religious values with modern education, the soft skills of PAI teachers in managing students' mental health and emotional development have become a critical area of inquiry. This study seeks to analyze the soft skills of PAI teachers in addressing these aspects, focusing on how they navigate the challenges posed by students' mental health issues and emotional growth.

Mental health and emotional development are pivotal to students' overall well-being and academic success [3], [4], [5]. However, in many educational settings, these aspects are often overlooked, leading to issues such as anxiety, depression, and behavioral problems among students. While the importance of mental health in education is widely recognized, there is a significant gap in understanding how PAI teachers, who are uniquely positioned to integrate spiritual and emotional guidance, can effectively contribute to this area [6], [7], [8]. The primary research question this study aims to address is: What soft skills do PAI teachers at SMA Adabiah Padang possess in managing students' mental health and emotional development, and how do these skills impact the students' overall well-being? By answering this question, the study seeks to provide a deeper understanding of the role of PAI teachers in fostering a supportive educational environment.

The objectives of this research are threefold. First, it aims to identify the specific soft skills that PAI teachers utilize in addressing students' mental health and emotional challenges. Second, it seeks to analyze the effectiveness of these skills in creating a positive and supportive learning environment [9], [10]. Finally, the study intends to explore how these soft skills can be further developed and integrated into teacher training programs. The significance of this research lies in its potential to bridge the gap between religious education and mental health support, offering practical insights that can enhance the role of PAI teachers in promoting students' holistic development. By doing so, this study contributes to the broader discourse on the integration of mental health awareness within religious education frameworks.

Previous studies have highlighted the importance of soft skills in teaching, particularly in the context of emotional intelligence [11], communication [12], [13], [14], and empathy [15], [16]. However, there is a notable lack of research focusing specifically on the soft skills of PAI teachers in managing students' mental health and emotional development. Existing literature tends to generalize the role of teachers without considering the unique contributions of religious educators. This study addresses this gap by focusing on PAI teachers at SMA Adabiah Padang, a setting where religious values are deeply embedded in the educational process. By doing so, it aims to provide a nuanced understanding of how religious educators can play a pivotal role in addressing students' mental health challenges.

The study hypothesizes that PAI teachers at SMA Adabiah Padang possess a unique set of soft skills−rooted in Islamic teachings−that enable them to effectively manage students' mental health and emotional development. These skills, which include empathy, active listening, and the ability to provide spiritual guidance, are expected to have a positive impact on students' overall well-being. The research will test this hypothesis by examining the practices and experiences of PAI teachers, as well as the perceptions of students regarding the support they receive. Through this, the study aims to provide empirical evidence supporting the integration of soft skills training into the professional development of PAI teachers.

This research seeks to shed light on the critical yet underexplored role of PAI teachers in addressing students' mental health and emotional development. By focusing on the soft skills of these educators, the study aims to contribute to the development of more holistic and supportive educational practices, ultimately benefiting both students and teachers alike.

METHOD

This study employs a qualitative case study design. The case study approach is chosen to provide an in-depth exploration of the soft skills of Islamic Religious Education (PAI) teachers at SMAS Adabiah Padang in managing students' mental health and emotional development [17]. This design allows for a comprehensive understanding of the phenomenon within its real-life context, focusing on the unique characteristics of the school environment and the role of PAI teachers.

Sample and Research Subjects, this research subjects include: *Primary Subjects*: Islamic Religious Education (PAI) teachers at SMAS Adabiah Padang. *Secondary Subjects*: Students and school administrators who can provide additional insights into the teachers' soft skills and their impact on students. The sampling technique used is purposive sampling, where participants are selected based on their relevance to the research objectives. The sample size will consist of 5-10 PAI teachers, 15-20 students, and 2-3 school administrators to ensure data saturation and a comprehensive understanding of the phenomenon.

Data will be collected through multiple sources to ensure triangulation and enhance the validity of the findings. The methods include: *In-depth Interviews*: Semi-structured interviews with PAI teachers, students, and school administrators to gather detailed insights into the teachers' soft skills and their impact on students' mental health and emotional development [18]. *Observation*: Classroom and school environment observations to assess how teachers interact with students and manage emotional and mental health issues [19]. *Document Analysis*: Review of school records, lesson plans, and teacher evaluations to complement the interview and observation data.

The data collection process will follow these steps: *Preparation*: Develop interview guidelines, observation checklists, and document analysis frameworks. Obtain ethical approval and permission from the school. *Pilot Testing*: Conduct a pilot study to refine the data collection instruments. *Data Collection*: Conduct interviews, observations, and document analysis over a period of 2-3 months. *Data Recording*: Record interviews (with consent), take detailed field notes during observations, and organize documents for analysis. *Data Validation*: Share preliminary findings with participants for member checking to ensure accuracy and credibility [20], [21], [22].

The data will be analyzed using thematic analysis, following Braun and Clarke's (2006) six-step framework: *Familiarization*: Transcribe and review all data to gain a thorough understanding. *Coding*: Generate initial codes to identify meaningful patterns. *Theme Development*: Organize codes into broader themes related to teachers' soft skills and their impact on students. *Reviewing Themes*: Refine themes to ensure they accurately represent the data. To ensure rigor, the analysis will involve peer debriefing and triangulation of data from interviews, observations, and documents [23], [24], [25], [26].

This methodology provides a systematic and rigorous approach to exploring the soft skills of PAI teachers at SMAS Adabiah Padang and their role in managing students' mental health and

emotional development. By employing a case study design, purposive sampling, and thematic analysis, the study aims to generate meaningful insights that can inform educational practices and policies.

RESULTS

Mental Health Disorders Among Students at SMAS Adabiah Padang

This research focuses on identifying and analyzing mental health disorders among students at SMAS Adabiah Padang, based on emotional and cognitive aspects, using Zakiah Daradjat's theoretical framework. The findings are derived from interviews with counseling teachers (BK), observations, and student documentation. The data has been triangulated to ensure validity and reliability.

Table 1. Mental Healt Disorders Among Student

Aspect	Type of Disorder	Key Characteristics	Informan (Initials)
Emotional Aspect	Disturbed Feelings	Social environment issues, bullying, family problems, and conflicts with teachers.	HR, NH, AN, RL, KA, ATK, AR
	Excessive Anxiety (Anxiety Disorder)	Trauma from past bullying, physical symptoms (trembling, cold sweats).	HZ, MD
	Feelings of Envy	Comparison with siblings, lack of parental support.	RR, FH, YA, GA, DP, KLR
	Low Self-Esteem	Trauma, social issues, and physical insecurities.	MD, HZ, RL, NH, KA, HR, KLR, ATK, FO, APA
	Prolonged Sadness	Loss of parental figures, lack of affection, and harsh parenting.	RPN, HF, YA, JS, KD, LR
Cognitive Aspect	Laziness	Low motivation, frequent absenteeism, and incomplete assignments.	FA, NA, RA, FP, FR, RSR, FH, ARS, MRS, HPA, KV, SR, CA, FR, VP, APA, MAG
	Lack of Concentration	Psychological trauma, family pressure, and economic issues.	MD, HZ, JS, NA, RPN, YA
	Truancy	Low motivation, lack of parental guidance, and wealth-driven indifference.	KV, FR, HF, FP, APA, JS, RPN

From the table above, it can be explained Emotional Aspect, Disturbed Feelings, Students such as HR, NH, AN, RL, KA, ATK, and AR experience emotional disturbances due to bullying, social conflicts, and family issues. For instance, HR faces both verbal and physical bullying, leading to discomfort and emotional distress. These issues are exacerbated by internal factors such as economic difficulties and family problems, as seen in students like RR, JS, NA, and LR.

Excessive Anxiety (Anxiety Disorder), students HZ and MD exhibit symptoms of anxiety disorder, stemming from past bullying experiences. HZ, for example, often skips school, experiences trembling, and cold sweats. This condition has been clinically diagnosed by a psychiatrist, highlighting the severity of their trauma. Feelings of Envy, Envy arises from parental comparisons and lack of emotional support. Students like RR and DP feel unfairly treated compared to their siblings, leading to emotional distress. DP, for

instance, struggles academically but excels in cooking, yet faces pressure to match her sibling's achievements.

Low Self-Esteem, Low self-esteem is prevalent among students with traumatic experiences (MD, HZ), social issues (RL, NH, KA, HR, KLR, ATK), and physical insecurities (FO, APA). FO, for example, lost confidence after a leg injury, while APA struggles with self-worth due to a similar accident. Prolonged Sadness, Students like RPN, HF, YA, JS, KD, and LR experience prolonged sadness due to the loss of parental figures or lack of affection. RPN, an orphan, feels neglected and unmotivated, though counseling sessions have shown slight improvement.

As for Cognitive Aspect, Laziness, Laziness manifests in frequent absenteeism and incomplete assignments among students like FA, NA, RA, FP, FR, RSR, FH, ARS, MRS, HPA, KV, SR, CA, FR, VP, APA, and MAG. FA, for instance, prefers racing over academics, while KV, from a wealthy family, sees no value in education. Lack of Concentration, Students such as MD, HZ, JS, NA, RPN, and YA struggle to concentrate due to psychological trauma, family pressures, and economic hardships. These factors hinder their ability to focus during lessons. Truancy, Truancy is common among students with low motivation, such as KV, FR, HF, FP, APA, JS, and RPN. Wealthy students like KV view school as unnecessary, while others like APA and RPN lack parental guidance, further diminishing their motivation. The research highlights significant mental health challenges among students at SMAS Adabiah Padang, encompassing emotional and cognitive disorders. These issues are influenced by social, familial, and economic factors, as well as past traumatic experiences. Addressing these challenges requires a holistic approach, including counseling, parental involvement, and tailored educational strategies to support students' mental well-being and academic performance.

This research identifies and analyzes mental health disorders among students at SMAS Adabiah Padang, focusing on emotional and cognitive aspects using Zakiah Daradjat's theoretical framework. The findings reveal that students experience various emotional disorders, such as disturbed feelings, excessive anxiety, envy, low self-esteem, and prolonged sadness, primarily due to bullying, family conflicts, and social pressures [27]. Cognitive disorders, including laziness, lack of concentration, and truancy, are also prevalent, often linked to psychological trauma, economic hardships, and lack of parental guidance [28]. These issues are exacerbated by internal and external factors, such as family dynamics and socioeconomic status.

The findings align with previous studies highlighting the impact of bullying, family conflicts, and socioeconomic factors on students' mental health. For instance, research by [29], [30], [31] emphasizes how bullying leads to anxiety and low self-esteem, while studies by Ulya et al [32] underscore the role of family dynamics in shaping emotional well-being. Similarly, cognitive issues like laziness and truancy have been linked to low motivation and lack of parental involvement, as noted by [33], [34], [35]. This research reinforces these perspectives, providing empirical evidence from a specific educational context.

A clear trend in this study is the interplay between emotional and cognitive disorders, where emotional disturbances often manifest as cognitive challenges. For example, students with low self-esteem or anxiety tend to exhibit laziness and lack of concentration. This trend suggests that mental health issues are multifaceted and interconnected, requiring holistic interventions. Contextually, these findings reflect broader societal issues, such as the lack of mental health awareness in educational settings and the need for stronger family support systems.

If these mental health challenges remain unaddressed, they could lead to long-term consequences, such as academic

underachievement, dropout rates, and persistent psychological issues. Conversely, implementing targeted interventions, such as counseling programs and parental workshops, could significantly improve students' mental well-being and academic performance. Future research could explore the effectiveness of such interventions in similar contexts.

This study's findings are consistent with research conducted by Zhao et al [36], which identified bullying and family conflicts as primary causes of emotional disorders among students. However, this study uniquely highlights the role of envy and prolonged sadness, which are less commonly discussed in the literature. Additionally, the cognitive aspect of truancy among wealthy students, as seen in this study, contrasts with findings by Hasan et al, who associated truancy primarily with economic hardships [37]. These differences suggest that mental health issues are context-specific and influenced by local cultural and socioeconomic factors.

In the context of Islamic education, these findings underscore the importance of integrating mental health support into religious teachings [38]. Islamic principles, such as compassion (rahmah), patience (sabr), and self-reflection (muhasabah), can be leveraged to address emotional and cognitive disorders. For instance, counseling sessions could incorporate Islamic values to help students cope with trauma and build resilience. Furthermore, Islamic education can play a pivotal role in fostering a supportive school environment that prioritizes students' mental well-being.

This study contributes novelty by applying Zakiah Daradjat's theoretical framework to analyze mental health disorders in a specific Islamic educational setting. It also highlights the unique interplay between emotional and cognitive aspects, providing a comprehensive understanding of students' mental health challenges. Additionally, the focus on envy and prolonged sadness as distinct emotional disorders adds depth to the existing literature.

This research contributes to the fields of Islamic education and mental health by emphasizing the need for culturally sensitive and religiously informed interventions. It highlights the potential of Islamic teachings to address mental health issues and calls for greater collaboration between educators, counselors, and religious leaders. By integrating mental health support into Islamic education, schools can create a nurturing environment that promotes both academic and emotional growth

Intrapersonal Communication of Islamic Religious Education (PAI) Teachers in Managing Students' Mental Health and Emotional Development

This research explores the intrapersonal communication skills of PAI teachers at SMAS Adabiah Padang in managing students' mental health and emotional development. The study focuses on five key aspects: self-awareness, assertiveness, independence, self-regard, and self-actualization. Data was collected through interviews, observations, and triangulation to ensure validity and reliability.

Table 2. Intrapersonal Communication

Aspect	Key Characteristics	Teachers (Initials)	Evidence
Self-Awareness	Ability to recognize and manage emotions effectively.	PAI A, PAI R	Interviews and observations show emotional regulation and empathy in class.
	Difficulty in managing emotions, leading to inconsistent responses.	PAI N	Observations reveal emotional suppression or outbursts in certain situations.
Assertiveness	Clear, respectful, and empathetic communication with students and colleagues.	PAI A, PAI R	Observations in classrooms and interviews demonstrate assertive communication.
	Limited assertiveness, with occasional emotional outbursts or avoidance.	PAI N	Observations show inconsistent communication styles.
Independence	Ability to make objective decisions based on Islamic values and social norms.	PAI A, PAI R	Interviews and observations highlight rational decision-making processes.
	Struggles with emotional influence in decision-making.	PAI N	Observations reveal emotional bias in handling conflicts.
Self-Regard	High self-esteem, acknowledging strengths and weaknesses.	PAI A	Interviews reflect confidence and self-acceptance.
	Limited self-regard, affecting interactions with students.	PAI N	Observations show a lack of confidence in certain situations.
Self-Actualization	Commitment to professional growth and student development.	PAI A	Participation in workshops, seminars, and reflective practices.
	Limited focus on self-improvement and professional development.	PAI N	Observations indicate minimal engagement in developmental activities.

Self-Awareness, PAI A and PAI R: Both teachers demonstrate strong self-awareness, recognizing and managing emotions such as anger, sadness, and happiness. They use techniques like deep breathing and reflection to regulate emotions, ensuring a positive classroom environment. For example, PAI A remains calm and empathetic when students exhibit challenging behavior, creating a supportive learning atmosphere. PAI N: Struggles with emotional regulation, often suppressing emotions or reacting impulsively. This inconsistency affects classroom dynamics, as students may feel neglected or intimidated.

Assertiveness, PAI A and PAI R: Exhibit assertive communication by expressing thoughts and feelings respectfully and empathetically. They address conflicts constructively, fostering open dialogue with students and colleagues. For instance, PAI A uses pauses and gentle reminders to redirect disruptive behavior, maintaining a positive classroom climate. PAI N: Shows limited assertiveness, occasionally avoiding conflicts or reacting emotionally. This inconsistency hinders effective communication and relationship-building with students.

Independence, PAI A and PAI R: Make objective decisions based on Islamic values and social norms, ensuring fairness and accountability. They take responsibility for their choices and use failures as opportunities for growth. For example, PAI A handles student conflicts impartially, emphasizing fairness and mutual respect. PAI N, Struggles with emotional bias in decision-making, leading to inconsistent and sometimes unfair outcomes. This affects trust and rapport with students.

Self-Regard, PAI A: Demonstrates high self-regard, acknowledging strengths and weaknesses. This confidence enables effective teaching and positive interactions with students. PAI A's self-acceptance fosters a nurturing and supportive classroom environment. PAI N: Exhibits limited self-regard, impacting interactions with students and colleagues. A lack of confidence in certain situations undermines the ability to create a positive learning atmosphere.

Self-Actualization, PAI A: Actively pursues professional growth through workshops, seminars, and reflective practices. This commitment to self-improvement enhances teaching effectiveness and student engagement. For example, PAI A celebrates small achievements, such as completing a book on teaching methods, fostering a culture of continuous learning. PAI N: Shows limited engagement in self-actualization activities, missing opportunities for professional development and personal growth. This lack of

focus on self-improvement hinders the ability to adapt to evolving educational challenges.

The research highlights the critical role of intrapersonal communication skills in managing students' mental health and emotional development. Teachers like PAI A and PAI R, who exhibit strong self-awareness, assertiveness, independence, self-regard, and self-actualization, create positive and supportive learning environments. In contrast, PAI N's struggles in these areas underscore the need for targeted professional development to enhance emotional regulation, communication, and decision-making skills. By fostering these competencies, PAI teachers can better support students' holistic development and well-being.

This study explores the intrapersonal communication skills of Islamic Religious Education (PAI) teachers at SMAS Adabiah Padang in managing students' mental health and emotional development. The research identifies five key aspects of intrapersonal communication: self-awareness, assertiveness, independence, self-regard, and self-actualization. The findings reveal that teachers PAI A and PAI R demonstrate strong competencies in these areas, enabling them to create supportive and positive learning environments. In contrast, PAI N struggles with emotional regulation, assertiveness, and self-regard, which negatively impacts classroom dynamics and student interactions. The study underscores the importance of intrapersonal communication skills in fostering students' holistic development and well-being.

The findings align with existing literature emphasizing the role of teachers' emotional intelligence and intrapersonal skills in educational settings. For instance, Rahman et al highlights the significance of self-awareness and emotional regulation in effective teaching [39]. Similarly, Odescalchi et al argue that teachers' social-emotional competencies are crucial for creating supportive classroom environments [40]. This study extends these insights by specifically examining PAI teachers, highlighting how Islamic values and intrapersonal communication intersect to influence students' mental health and emotional development.

A notable trend in the findings is the correlation between teachers' intrapersonal communication skills and their ability to manage classroom dynamics effectively. Teachers with strong self-awareness, assertiveness, and self-regard (PAI A and PAI R) consistently foster positive interactions and emotional well-being among students. Conversely, PAI N's struggles with emotional regulation and assertiveness reflect a broader trend observed in educational research: teachers with underdeveloped intrapersonal skills often face challenges in maintaining supportive learning environments [41]. This trend underscores the need for targeted professional development to enhance these skills among educators.

The findings suggest that improving PAI teachers' intrapersonal communication skills could significantly enhance their ability to support students' mental health and emotional development. Future research could explore the long-term impact of such interventions on student outcomes, including academic performance and emotional resilience. Additionally, integrating intrapersonal skills training into teacher education programs could prepare future educators to address the evolving emotional and psychological needs of students.

This study's findings are consistent with research by Fitzgerald et al, which highlights the importance of teachers' social-emotional competencies in promoting student well-being [42]. However, this study uniquely focuses on PAI teachers, emphasizing the integration of Islamic values with intrapersonal communication. While similar studies have explored emotional intelligence in general education settings, this research provides a contextualized

understanding of how these skills operate within Islamic educational frameworks.

The findings have significant implications for Islamic education, particularly in addressing the mental health and emotional development of students. By fostering intrapersonal communication skills among PAI teachers, schools can create environments that align with Islamic principles of empathy, fairness, and self-improvement. This approach not only enhances students' emotional well-being but also reinforces the ethical and spiritual dimensions of Islamic education.

This study contributes novelty by examining intrapersonal communication skills within the specific context of PAI teachers, a relatively underexplored area in educational research. By integrating Islamic values with emotional intelligence frameworks, the study offers a unique perspective on how cultural and religious contexts influence teaching practices and student outcomes. The research contributes to the fields of Islamic education and mental health by highlighting the critical role of intrapersonal communication skills in supporting students' holistic development. It provides actionable insights for educators, policymakers, and curriculum developers to enhance teacher training programs and promote mental health awareness in Islamic educational settings. By bridging the gap between emotional intelligence and Islamic pedagogy, this study paves the way for more inclusive and supportive educational practices.

Interpersonal Communication of Islamic Religious Education (PAI) Teachers in Managing Students' Mental Health and Emotional Development at SMAS Adabiah Padang

This research examines the interpersonal communication skills of PAI teachers at SMAS Adabiah Padang in addressing students' mental health and emotional development. The study focuses on four key aspects: social awareness, developing others, empathy, and service orientation. Data was collected through interviews, observations, and triangulation to ensure validity and reliability

Table 3. Interpersonal Communication

Aspect	Key Characteristics	Teachers (Initials)	Evidence
Social Awareness	Understanding of mental health and its importance for students.	PAI A, PAI R	Interviews and observations show proactive efforts to address mental health.
	Knowledge of specific mental health issues among students (e.g., anxiety, depression).	PAI A, PAI R	Collaboration with counseling teachers and parents to support students.
Developing Others	Holistic approach to student development, considering academic and emotional needs.	PAI A, PAI R	Regular meetings and strategies to identify and assist struggling students.
	Collaboration with counseling teachers and parents for comprehensive support.	PAI A, PAI R	Observations and interviews highlight teamwork and shared responsibilities.
Empathy	Individualized approach to address students' unique emotional and mental health needs.	PAI A, PAI R	Observations show personalized support and emotional understanding.
	Efforts to change negative mindsets and provide emotional reassurance.	PAI A, PAI R	Interviews reflect empathetic communication and encouragement.

| Service Orientation | Proactive efforts to identify and address students' mental health challenges. | PAI A, PAI R | Observations and interviews demonstrate consistent support and follow-up. |
| | Continuous motivation and appreciation for students' efforts and progress. | PAI A, PAI R | Interviews highlight the use of positive reinforcement and encouragement. |

Social Awareness, PAI A and PAI R: Both teachers demonstrate a strong understanding of mental health, defining it as a state of well-being that enables individuals to function optimally. They recognize common mental health issues among students, such as anxiety and depression, and emphasize the importance of self-acceptance and emotional support. For example, PAI A actively participates in school meetings to discuss students with special needs and provides spiritual guidance to help them cope with mental health challenges. Evidence: Interviews and observations reveal their proactive efforts to address mental health issues, including collaboration with counseling teachers and parents.

Developing Others, PAI A and PAI R: Adopt a holistic approach to student development, considering both academic performance and emotional well-being. They collaborate with counseling teachers to identify and support students facing mental health challenges. Regular meetings are held to develop strategies for assisting these students, ensuring a supportive learning environment. Evidence: Observations and interviews highlight their teamwork and shared responsibilities in addressing students' needs.

Empathy, PAI A and PAI R: Exhibit high levels of empathy by providing individualized support to students. They address unique emotional and mental health needs, offering reassurance and encouragement. For instance, PAI A works closely with students like HZ, who suffers from severe anxiety, providing both emotional and academic support. Evidence: Observations show personalized interactions, while interviews reflect their empathetic communication and efforts to change negative mindsets.

Service Orientation, PAI A and PAI R: Demonstrate a strong commitment to serving students' mental health needs through proactive and continuous support. They identify students' challenges early and provide ongoing assistance, including motivational encouragement and appreciation for their efforts. For example, PAI R collaborates with parents and counseling teachers to ensure comprehensive support for students., Evidence: Interviews and observations highlight their consistent follow-up and use of positive reinforcement to foster student growth.

This research highlights the interpersonal communication skills of PAI (Islamic Religious Education) teachers at SMAS Adabiah Padang in addressing students' mental health and emotional development. The study identifies four critical aspects: social awareness, developing others, empathy, and service orientation. The findings reveal that PAI teachers demonstrate a strong understanding of mental health issues, such as anxiety and depression, and actively collaborate with counseling teachers and parents to provide holistic support. They employ empathetic communication, personalized approaches, and proactive strategies to foster students' emotional well-being and academic growth. The evidence from interviews and observations underscores their commitment to creating a supportive learning environment.

The findings align with existing literature emphasizing the role of teachers in supporting students' mental health. Previous studies, highlight the importance of teacher-student relationships in promoting emotional well-being [43], [44]. Similarly, research underscores the significance of empathy and social awareness in educational settings [45]. This study extends these insights by focusing specifically on PAI teachers, who integrate spiritual and emotional guidance into their pedagogical practices, reflecting the unique context of Islamic education.

A notable trend in this study is the integration of spiritual and emotional support within the framework of Islamic education. PAI teachers not only address academic needs but also provide spiritual guidance to help students cope with mental health challenges. This trend reflects the holistic approach of Islamic education, which emphasizes the interconnectedness of physical, emotional, and spiritual well-being. Contextually, this approach aligns with the broader goals of PAI, which aim to nurture well-rounded individuals who are emotionally resilient and spiritually grounded.

The findings suggest that PAI teachers' interpersonal communication skills can serve as a model for addressing mental health challenges in other educational contexts. As mental health issues among students continue to rise globally, the proactive and empathetic approach demonstrated by PAI teachers could be adapted and scaled in diverse educational settings. However, this requires additional training and resources to equip teachers with the necessary skills to address complex mental health issues effectively.

Compared to similar studies, such as those by Hossain et al. (2025) on teacher-student relationships and mental health, this research highlights the unique role of PAI teachers in integrating spiritual guidance with emotional support [46]. While Greenberg et al. focus on general educational settings, this study emphasizes the contextual relevance of Islamic education. Additionally, the findings resonate with research by [47], which explores the role of Islamic education in fostering emotional resilience. However, this study provides deeper insights into the specific interpersonal communication strategies employed by PAI teachers.

The findings have significant implications for the field of Islamic education and mental health. They underscore the potential of PAI teachers to serve as frontline responders to students' mental health challenges, particularly in communities where mental health services are limited. By integrating emotional and spiritual support, PAI teachers can contribute to the development of emotionally resilient and spiritually grounded individuals. This approach also aligns with the broader goals of sustainable development, particularly in promoting mental health and well-being (SDG 3).

The novelty of this study lies in its focus on the interpersonal communication skills of PAI teachers within the context of mental health and emotional development. While previous research has explored teacher-student relationships and mental health, few studies have examined the unique contributions of PAI teachers in integrating spiritual and emotional support. This study fills this gap by providing empirical evidence of the strategies employed by PAI teachers to address students' mental health challenges.

This research contributes to the fields of Islamic education and mental health by highlighting the critical role of PAI teachers in addressing students' emotional and mental well-being. It provides a framework for integrating interpersonal communication skills into teacher training programs, emphasizing the importance of empathy, social awareness, and service orientation. Additionally, the study offers practical insights for policymakers and educators seeking to enhance mental health support in Islamic educational institutions. By bridging the gap between education and mental health, this research underscores the potential of PAI teachers to foster holistic student development.

CONCLUSION

This study identifies significant mental health challenges among students at SMAS Adabiah Padang, encompassing emotional disorders such as disturbed feelings, anxiety, envy, low self-esteem, and prolonged sadness, as well as cognitive issues like laziness, lack of concentration, and truancy. These disorders are influenced by

social, familial, and economic factors, as well as past traumatic experiences. Additionally, the research highlights the critical role of Islamic Religious Education (PAI) teachers in managing students' mental health through intrapersonal and interpersonal communication skills. Teachers with strong self-awareness, empathy, and service orientation, such as PAI A and PAI R, create supportive learning environments, while those lacking these skills, like PAI N, struggle to address students' emotional needs effectively.

The study contributes to the fields of Islamic education and mental health by applying Zakiah Daradjat's theoretical framework to analyze mental health disorders in a specific Islamic educational context. It emphasizes the integration of Islamic values, such as compassion (rahmah) and patience (*sabr*), into mental health interventions. Furthermore, it provides empirical evidence of the interplay between emotional and cognitive disorders, offering a comprehensive understanding of students' mental health challenges. The research also underscores the importance of intrapersonal and interpersonal communication skills among PAI teachers, highlighting their potential to foster holistic student development.

The findings align with the study's objectives by identifying key mental health issues among students and exploring the role of PAI teachers in addressing these challenges. The research demonstrates how Islamic education can be leveraged to support students' emotional and cognitive well-being, reinforcing the need for culturally sensitive and religiously informed interventions.

Future research should explore the long-term impact of integrating mental health support into Islamic education, particularly through teacher training programs that enhance intrapersonal and interpersonal communication skills. Additionally, studies could investigate the effectiveness of Islamic-based counseling and parental involvement in improving students' mental health outcomes. Comparative research across different Islamic educational settings would also provide broader insights into the contextual factors influencing mental health.

Theoretically, this study bridges the gap between emotional intelligence and Islamic pedagogy, offering a unique perspective on how cultural and religious contexts shape educational practices. Practically, it provides actionable insights for educators, policymakers, and curriculum developers to enhance mental health support in Islamic schools. By fostering a nurturing environment that integrates emotional and spiritual well-being, schools can promote both academic and personal growth among students.

This research serves as a wake-up call to the urgent need for mental health awareness and support in Islamic educational settings. It highlights the transformative potential of PAI teachers in addressing students' emotional and cognitive challenges, urging stakeholders to prioritize mental health as a cornerstone of holistic education. The time to act is now—ignoring these issues risks perpetuating long-term consequences for students' well-being and academic success.

.

DAFTAR PUSTAKA

[1] A. Willis, "Teachers prioritise relationships over curriculum for student well-being," *Pedagog. Cult. Soc.*, vol. 32, no. 2, pp. 473–489, 2024, doi: 10.1080/14681366.2022.2055116.

[2] J. O'Flaherty and O. McCormack, "Student holistic development and the 'goodwill' of the teacher," *Educ. Res.*, vol. 61, no. 2, pp. 123–141, 2019, doi: 10.1080/00131881.2019.1591167.

[3] K. Anand, V. S. Yassmitha, and G. Deepti, "Prediction of Happiness Index for School Children using an Ensemble based Approach," in *Proceedings - 2024 4th International Conference on Pervasive Computing and Social Networking, ICPCSN 2024*, 2024, pp. 496–502. doi: 10.1109/ICPCSN62568.2024.00084.

[4] N. D. T. Abdullah, M. F. Fadhil, R. Radzuwan, and K. P. Hua, "Mental well-being and its association with academic performance among final-year students of the Faculty of Sports Science & Recreation, Universiti Teknologi MARA: A case study," *J. Phys. Educ. Sport*, vol. 22, no. 10, pp. 2306–2309, 2022, doi: 10.7752/jpes.2022.10293.

[5] A. I. Leshner and L. A. Scherer, *Mental health, substance use, and wellbeing in higher education*. 2021. doi: 10.17226/26015.

[6] T. Wang, "Teachers as the agent of change for student mental health: the role of teacher care and teacher support in Chinese students' well-being," *Front. Psychol.*, vol. 14, 2023, doi: 10.3389/fpsyg.2023.1283515.

[7] A. Emeljanovas, S. Sabaliauskas, B. Mežienė, and N. Istomina, "The relationships between teachers' emotional health and stress coping," *Front. Psychol.*, vol. 14, 2023, doi: 10.3389/fpsyg.2023.1276431.

[8] K. H. Rahmi, "Teachers' mental health and well-being in education: What can be improved for the education system in Indonesia?," *Multidiscip. Rev.*, vol. 7, no. 12, 2024, doi: 10.31893/multirev.2024301.

[9] K. R. Mazzer and D. J. Rickwood, "Teachers role breadth and perceived efficacy in supporting student mental health," *Adv. Sch. Ment. Health Promot.*, vol. 8, no. 1, pp. 29–41, 2015, doi: 10.1080/1754730X.2014.978119.

[10] K. L. Phillippo and M. S. Kelly, "On the Fault Line: A Qualitative Exploration of High School Teachers' Involvement with Student Mental Health Issues," *School Ment. Health*, vol. 6, no. 3, pp. 184–200, 2014, doi: 10.1007/s12310-013-9113-5.

[11] J. Tyler, "Emotional Intelligence and Soft Skills: A Case Study on Information Technology Employee Performance," Walden University, 2022.

[12] H.-J. Chang, M. S. Shin, and H. J. Kim, "A study about recognition of middle school and high school students on teacher's communication skills," *Clin. Arch. Commun. Disord.*, vol. 7, no. 3, pp. 131–136, 2022, doi: 10.21849/CACD.2022.00794.

[13] R. Palos and M. C. Petrovici, "Perceived importance of communication skills and their predictive value for academic performance," *Rev. Cercet. si Interv. Soc.*, vol. 46, pp. 85–98, 2014, [Online]. Available: https://www.scopus.com/inward/record.uri?eid=2-s2.0-84907284685&partnerID=40&md5=3b865b54566948587 47845226f2fb705

[14] N. A. Majid, Z. M. Jelas, N. Azman, and S. Rahman, "Communication skills and work motivation amongst expert teachers," in *Procedia - Social and Behavioral Sciences*, 2010, pp. 565–567. doi: 10.1016/j.sbspro.2010.10.075.

[15] Y. Cai, Y. Yang, Q. Ge, and H. Weng, "The interplay between teacher empathy, students' sense of school belonging, and learning achievement," *Eur. J. Psychol. Educ.*, vol. 38, no. 3, pp. 1167–1183, 2023, doi: 10.1007/s10212-022-00637-6.

[16] A. Ratka, "Empathy and the development of affective skills," *Am. J. Pharm. Educ.*, vol. 82, no. 10, pp. 1140–1143, 2018, doi: 10.5688/ajpe7192.

[17] B. Shishkov, "Case Study and Examples," in *Enterprise Engineering Series*, 2020, pp. 175–234. doi: 10.1007/978-3-030-22441-7_7.

[18] R. Longhurst, "Interviews: In-Depth, Semi-Structured," in *International Encyclopedia of Human Geography*, University of Waikato, Hamilton, New Zealand: Elsevier Inc., 2009, pp. 580–584. doi: 10.1016/B978-008044910-4.00458-2.

[19] G. A. Fine, "Participant Observation," in *International Encyclopedia of the Social & Behavioral Sciences: Second Edition*, Northwestern University, Chicago, IL, United States: Elsevier Inc., 2015, pp. 530–534. doi: 10.1016/B978-0-08-097086-8.44041-9.

[20] L. Gelling, "Applying for ethical approval for research: the main issues," *Nurs. Stand.*, vol. 30, no. 20, pp. 40–44, 2016, doi: 10.7748/ns.30.20.40.s46.

[21] C.-F. Chen, M. Schweiker, and J. K. Day, "Ethics and privacy," in *Exploring Occupant Behavior in Buildings: Methods and Challenges*, 2017, pp. 287–306. doi: 10.1007/978-3-319-61464-9_11.

[22] M. S. Ibarra-Sáiz, A. González-Elorza, and G. Rodríguez-Gómez, "Methodological contributions to the use of semi-structured interview in educational research based on a multiple case study," *Rev. Investig. Educ.*, vol. 41, no. 2, pp. 501–522, 2023, doi: 10.6018/rie.546401.

[23] D. Byrne, "A worked example of Braun and Clarke's approach to reflexive thematic analysis," *Qual. Quant.*, vol. 56, no. 3, pp. 1391–1412, 2022, doi: 10.1007/s11135-021-01182-y.

[24] L. Hole, "Handle with care; considerations of Braun and Clarke's approach to thematic analysis," *Qual. Res. J.*, vol. 24, no. 4, pp. 371–383, 2024, doi: 10.1108/QRJ-08-2023-0132.

[25] C. Fona, "Qualitative data analysis: Using thematic analysis," in *Researching and Analysing Business: Research Methods in Practice*, 2023, pp. 130–145. doi: 10.4324/9781003107774-11.

[26] A. Majumdar, "Thematic Analysis in Qualitative Research," in *Research Anthology on Innovative Research Methodologies and Utilization Across Multiple Disciplines*, 2022, pp. 604–622. doi: 10.4018/978-1-6684-3881-7.ch031.

[27] P. Rezi *et al.*, "Mental Health And Adolescents Character Development Islamic Perspective," *Eur. J. Mol. Clin. Med.*, vol. 7, no. 11, pp. 235–240, 2020.

[28] M. M. Rahman, "Mental Health: Islamic Perspective," *QIJIS (Qudus Int. J. Islam. Stud.)*, vol. 3, no. 1, pp. 54–71, 2015.

[29] T. T. Tin *et al.*, "Educational Big Data Analytic – A Mediation Analysis of the Covariates of Academic Performance," *Pakistan J. Life Soc. Sci.*, vol. 22, no. 2, pp. 2626–2640, 2024, doi: 10.57239/PJLSS-2024-22.2.00191.

[30] T. Sanada, "Contextualizing ijime: The relationship between school bullying, socioeconomic status, and academic achievement with a focus on school position," *Contemp. Japan*, 2025, doi: 10.1080/18692729.2024.2425550.

[31] A. B. Kelly *et al.*, "Depressed Mood During Early to Middle Adolescence: A Bi-national Longitudinal Study of the Unique Impact of Family Conflict," *J. Youth Adolesc.*, vol. 45, no. 8, pp. 1604–1613, 2016, doi: 10.1007/s10964-016-0433-2.

[32] M. Ulya, M. Yasir, Nurliana, and Numasanah, "Mental Health Based on the Qur'an Perspective," in *Alhamdic Conference Proceeding*, 2024, pp. 7–14.

[33] D. R. Topor, S. P. Keane, T. L. Shelton, and S. D. Calkins, "Parent involvement and student academic performance: A multiple mediational analysis," *J. Prev. Interv. Community*, vol. 38, no. 3, pp. 183–197, 2010, doi: 10.1080/10852352.2010.486297.

[34] L. Gilmore and G. Boulton-Lewis, "'Just try harder and you will shine': A study of 20 lazy children," *Aust. J. Guid. Couns.*, vol. 19, no. 2, pp. 95–103, 2009, doi: 10.1375/ajgc.19.2.95.

[35] R. B. McNeal, "Checking in or checking out? investigating the parent involvement reactive hypothesis," *J. Educ. Res.*, vol. 105, no. 2, pp. 79–89, 2012, doi: 10.1080/00220671.2010.519410.

[36] N. Zhao *et al.*, "School bullying results in poor psychological conditions: evidence from a survey of 95,545 subjects," *Front. Psychol.*, vol. 15, 2024, doi: 10.3389/fpsyg.2024.1279872.

[37] M. K. Hasan, H. Uddin, T. B. Younos, N. A. H. Mukta, and D. Zahid, "Prevalence of truancy among school-going adolescents in three South Asian countries: association with potential risk and protective factors," *Int. J. Adolesc. Youth*, vol. 28, no. 1, pp. 226–241, 2023, doi: 10.1080/02673843.2023.2242480.

[38] A. Khodijah, I. Nani, and M. Rahmat, "Religious Education as a Tool for Mental Health Improvement in Madrasah Aliyah," *EDUKASI J. Penelit. Pendidik. Agama dan Keagamaan*, vol. 22, no. 2, pp. 311–323, 2024, doi: 10.32729/edukasi.v22i2.1895.

[39] M. H. Rahman, M. Bin Amin, M. F. Yusof, M. A. Islam, and S. Afrin, "Influence of teachers' emotional intelligence on students' motivation for academic learning: an empirical study on university students of Bangladesh," *Cogent Educ.*, vol. 11, no. 1, p., 2024, doi: 10.1080/2331186X.2024.2327752.

[40] C. Odescalchi, L. Paleczek, and B. Gasteiger-Klicpera, "Primary school teachers´ social-emotional competencies and strategies in fostering the social participation of students with SEBD," *Eur. J. Spec. Needs Educ.*, vol. 00, no. 00, pp. 1–15, 2024, doi: 10.1080/08856257.2024.2370149.

[41] M. A. Brackett, S. E. Rivers, M. C. Bertoli, and P. Salovey, "Emotional intelligence: Implications for personal, social, academic, and workplace success," *Soc. Personal. Psychol. Compass*, vol. 5, no. 1, pp. 88–103, 2011, doi: 10.1111/j.1751-9004.2010.00334.x.

[42] M. M. Fitzgerald, K. Shipman, M. Pauletic, K. Ellesworth, and A. Dymnicki, "Promoting educator social emotional competence, well-being, and student–educator relationships: A pilot study," *Ment. Heal. Prev.*, vol. 26, p. 200234, 2022, doi: https://doi.org/10.1016/j.mhp.2022.200234.

[43] M. J. N. Nalipay, C. S. Chai, M. S.-Y. Jong, and M. G. Bajal, "Teachers' Experiences of Handling Students with Mental Health Issues: Implications for School Mental Health Programs," *School Ment. Health*, vol. 17, no. 1, pp. 217–233, 2025, doi: 10.1007/s12310-024-09720-3.

[44] L. Shelemy, K. Harvey, and P. Waite, "Secondary school teachers' experiences of supporting mental health," *J. Ment. Heal. Training, Educ. Pract.*, vol. 14, no. 5, pp. 372–383, 2019, doi: 10.1108/JMHTEP-10-2018-0056.

[45] C. Silke *et al.*, "Activating Social Empathy: An evaluation of a school-based social and emotional learning programme," *Soc. Emot. Learn. Res. Pract. Policy*, vol. 3, p. 100021, 2024, doi: https://doi.org/10.1016/j.sel.2023.100021.

[46] A. Hossain, S. H. Ansari, R. Sarkar, and S. Bhattacharjee, "The Role Of Teacher-Student Relationships In Promoting Emotional Well-Being In Primary Schools In West Bengal," *IOSR J. Humanit. Soc. Sci.*, vol. 30, no. 1, pp. 50–56, 2025, doi: 10.9790/0837-3001065056.

[47] A. Alimni, A. Amin, and D. A. Kurniawan, "The role of Islamic education teachers in fostering students' emotional intelligence," *Int. J. Eval. Res. Educ.*, vol. 11, no. 4, pp. 1881–1892, 2022, doi: 10.11591/ijere.v11i4.22116.

Research Article

Implementation of Islamic Educational Values through the Scout Movement at Daarul Ilmi Integrated Pesantren, West Bandung

Arif Rahman Hakim,[1] **Nurzakiyah Al Ma`sumah.**[2]
[1] Universitas Islam Negeri Sunan Gunung Djati Bandung
[2] STAI Siliwangi Bandung

ABSTRAK: Gerakan Pramuka, sebagai kegiatan ekstrakurikuler, bertujuan membentuk karakter peserta didik dengan menekankan ketahanan hidup, kepribadian positif, dan solidaritas sosial. Keselarasannya dengan pendidikan Islam menjadikannya relevan untuk pesantren yang mengutamakan nilai moral dan spiritual. Penelitian ini mengeksplorasi implementasi nilai-nilai pendidikan Islam melalui Gerakan Pramuka di Pesantren Terpadu Daarul Ilmi, Bandung Barat, menggunakan pendekatan kualitatif dengan wawancara mendalam, observasi lapangan, dan dokumentasi. Hasil penelitian menunjukkan bahwa Pramuka dijalankan melalui perencanaan terstruktur, mencakup visi, misi, dan tujuan yang jelas, terintegrasi dengan kurikulum pesantren. Struktur organisasi yang solid memastikan kelancaran pelaksanaan, dengan kegiatan seperti perkemahan dan pelatihan kepemimpinan meningkatkan keterampilan praktis serta memperkuat nilai moral dan spiritual, seperti disiplin, tanggung jawab, dan ukhuwah. Evaluasi menunjukkan program yang terorganisir baik dan konsisten dengan hasil positif. Gerakan Pramuka di Daarul Ilmi berhasil mengintegrasikan nilai-nilai Islam, menghasilkan santri berkarakter mulia dan peduli sosial, mendukung perkembangan karakter holistik.

ABSTRACT: The Scout Movement, an extracurricular activity, aims to shape students' character by fostering resilience, positive personality traits, and social solidarity. Its alignment with Islamic education makes it highly relevant for pesantren, which prioritize moral and spiritual values. This study explores the implementation of Islamic educational values through the Scout Movement at Daarul Ilmi Integrated Pesantren, West Bandung, using a qualitative approach with in-depth interviews, field observations, and documentation. Findings reveal that Scouting is implemented through structured planning, including clear vision, mission, and objectives, integrated with the pesantren's curriculum. A robust organizational structure ensures smooth execution, with activities like camping and leadership training enhancing practical skills and reinforcing moral and spiritual values such as discipline, responsibility, and ukhuwah (brotherhood). Evaluations indicate consistent, well-organized programs with positive outcomes. The Scout Movement at Daarul Ilmi successfully integrates Islamic values, fostering santri with noble character and social responsibility, contributing to holistic character development.

INTRODUCTION

Education plays a pivotal role in shaping the character and personality of the younger generation. Beyond academic aspects, education must also equip students with the ability to live by sound moral principles and reinforce spiritual values through religious guidance [1]. One educational system that has proven to have a significant impact on character development is Islamic-based education. In this context, Islamic education plays a crucial role in instilling noble values in individuals, influencing their social, family, and broader community life. As a key institution for embedding these values, pesantren (Islamic boarding schools) have become places that not only teach religious knowledge but also foster the character and morality of their students.

The Scout Movement, as an extracurricular activity, holds significant importance in shaping students' character [2]. This activity is designed to develop resilience, noble character, and a strong sense of social responsibility. In line with the objectives of Islamic education, [3] states that Islamic education prioritizes the formation of noble morals, positive personality traits, and the reinforcement of moral and spiritual values. [4] further notes that the Scout Movement is highly relevant in the context of pesantren. The integration of Islamic values within the Scout Movement, such as honesty, discipline, responsibility, and social care, plays a vital role in shaping the virtuous character of santri (pesantren students).

Islamic education in pesantren is not solely focused on religious instruction but also on holistic character development. As highlighted by Taufik, the integration of Islamic values through Scouting activities is expected to enrich the educational process experienced by santri. This study aims to explore how the implementation of Islamic educational values through the Scout Movement can be carried out in a modern pesantren that integrates religious education with practical life skills.

Daarul Ilmi Integrated Pesantren in West Bandung is one such institution that combines Islamic education with various self-development activities. At this pesantren, programs are designed to blend Islamic education with social skills and leadership development through the Scout Movement. As a youth organization, the Scout Movement inherently aligns with Islamic teachings, emphasizing principles such as discipline, camaraderie, and responsibility. Therefore, the integration of Islamic values taught in pesantren with Scouting activities is expected to have a positive impact on shaping the character and morality of santri.

This study focuses on the implementation of Islamic educational values through the Scout Movement at Daarul Ilmi Integrated Pesantren in West Bandung. Through this research, the author seeks to delve deeper into how the Scout Movement can serve as a medium for instilling Islamic educational values in santri. The primary focus is to analyze the extent to which these values are practiced in the daily lives of santri and to assess their impact on character development.

The Scout Movement is an organization with noble objectives, aiming to educate its members to become disciplined, responsible, independent, and caring individuals. Widely recognized in Indonesia, Scouting offers a range of activities that are not only educational but also foster moral and social character [6]. In this regard, the Scout Movement aligns with the goals of Islamic education, as articulated by [7], which aim to develop individuals who are not only intellectually capable but also possess good morals, social awareness, and a sense of responsibility toward themselves, their families, and society. However, despite the similarities in the values promoted by the Scout Movement and Islamic education, there is a lack of specific research exploring the implementation of Islamic educational values through Scouting, particularly in the pesantren context. Therefore, this study seeks to address this gap by examining how Islamic educational values can be applied within Scouting activities in pesantren and how these elements mutually reinforce each other in shaping santri character.

Based on previous research, many studies highlight the importance of character and moral education within educational systems. [8] emphasizes that, amid the prevalent moral crises among students, character education is an urgent need to develop a generation that is not only intellectually proficient but also strong in moral and ethical values. By strengthening character education, noble values can be instilled, serving as the foundation for positive behavior and social responsibility in the future. Similarly, [9] note that character education in Western perspectives emphasizes individualism, personal responsibility, and social ethics to support societal integration. In contrast, Islamic character education focuses on fostering noble morals based on the teachings of the Qur'an and Hadith, emphasizing harmony in relationships with God, oneself, and others. Despite their differing approaches, both perspectives share the common goal of forming responsible, morally upright individuals capable of contributing positively to society. Furthermore, [10] underscores that character education is critical in addressing the growing moral crises among the younger generation. Through character education, eroded moral values can be reinforced by instilling positive attitudes such as honesty, responsibility, empathy, and discipline. Thus, character education serves not only as a solution to improve student behavior but also as a means to build a more moral and harmonious society.

One relevant study by [11], titled "Values of Character Education: Strengthening through Scout Extracurricular Activities in Pesantren," explains that character education values can be effectively reinforced through Scouting activities in pesantren, teaching life skills, discipline, cooperation, and leadership. By integrating Islamic moral and ethical principles into every Scouting activity, santri are not only taught the importance of personal responsibility but also given opportunities to develop noble morals, such as mutual respect, honesty, and empathy. Furthermore, [12], in their study "Interpersonal Communication of Daily Coordinating Advisors Toward Santri in Upholding Scouting Discipline at Darussalam Gontor 2 Modern Pesantren," highlight the importance of character education and Islamic values in management, stating that enforcing Scouting discipline teaches order and responsibility while embedding fundamental Islamic values in santri character. Through a wise and compassionate approach, advisors integrate Islamic teachings like honesty, discipline, and mutual respect into Scouting activities, enabling santri to grow into morally upright individuals ready to contribute positively to society. Additionally, [13], in their study "Islamic Philanthropy in Character Formation through an Integrated Education System," demonstrate that pesantren play a significant role in shaping santri character, particularly through the consistent application of strong Islamic values. The study explains that values such as tawadhu (humility), istiqomah (steadfastness), and amar ma'ruf nahi munkar (enjoining good and forbidding wrong) form the foundation for developing exemplary individuals. This research shows that pesantren, as institutions prioritizing Islamic teachings, can foster better santri character when these values are consistently applied in daily life.

Moreover, Scouting, as a youth organization, shares similar goals in character formation by educating its members to be responsible, disciplined, and caring individuals. A study by [14], titled "The Role of Scouting Organizations in Developing Character, National Spirit, and Life Skills of Students at SMA Negeri 1 Kulisusu," states that the Scout Movement is highly effective in shaping members' character, particularly in leadership, teamwork, and group responsibility. Nurlaila reveals that through activities like camping, community service, and group tasks, Scouts are trained to collaborate, listen to others' opinions, and solve problems together, aligning with Islamic education's emphasis on ukhuwah (brotherhood), mutual help, and community building.

By combining these approaches, Daarul Ilmi Integrated

Pesantren in West Bandung has significant potential to integrate Islamic educational values with well-structured Scouting activities. This aligns with research by [15], where Susanti states that combining Islamic values and Scouting activities strengthens santri character while equipping them with valuable life skills. The study shows that through skill training, cooperation, and leadership development in Scouting, santri are not only taught to excel in religious knowledge but also gain essential social skills to face life's challenges.

This study describes the implementation of Islamic educational values through Scouting activities at Daarul Ilmi Integrated Pesantren in West Bandung and further explores the impact of this integration on santri character formation. Specifically, the research aims to: 1) Analyze the Islamic educational values taught at Daarul Ilmi Integrated Pesantren in West Bandung; 2) Identify how the Scout Movement is applied in santri daily activities and how Islamic values are integrated into these activities; 3) Assess the impact of integrating Islamic values and the Scout Movement on the character and personal development of santri in the pesantren.

This research is expected to contribute to the development of educational systems in pesantren, particularly those combining Islamic education with social activities that foster character. The findings can serve as a reference for other educational institutions in implementing moral and character values aligned with religious teachings in extracurricular activities, especially those based on the Scout Movement. Through this study, a deeper understanding of the synergy between the Scout Movement and Islamic educational values is anticipated, contributing to the creation of a knowledgeable, morally upright younger generation capable of making positive societal contributions. With this understanding, Daarul Ilmi Integrated Pesantren has successfully developed a more effective approach to integrating Islamic educational values through Scouting activities, enhancing the quality of santri character formation and preparing them to face life's challenges with better and wiser attitudes.

METHOD

This study employs a qualitative approach with a field research design. In field research, researchers are directly involved in data collection through observation, interviews, and discussions with relevant respondents [16]. The data collection process begins with designing appropriate research instruments, such as interview and observation guidelines, and compiling a list of informants or sources with relevant knowledge or experience [17]. Researchers then conduct in-depth interviews and field observations to obtain information that supports an understanding of the phenomenon under study.

Once collected, the data are analyzed inductively using a critical approach to identify patterns, themes, and relationships between emerging concepts. This analysis aims to gain a deeper understanding of the researched context and uncover the meanings embedded in the field data, thereby producing findings that are more comprehensive and relevant to the research objectives.

RESULTS

History of the Scout Movement in Indonesia

The Scout Movement in Indonesia has a long and storied history, becoming an integral part of the nation's educational system since its formal establishment in 1961 through Presidential Decree of the Republic of Indonesia No. 238 of 1961. The movement aims to shape a young generation that is intelligent, independent, disciplined, and morally upright [18]. Initially, Scouting emphasized outdoor activities, life skills, and leadership development. Over time, however, it has also served as a platform for instilling values of nationalism and morality.

Since its inception in 1961, the Scout Movement has been inseparable from Indonesia's educational system, with the primary

goal of fostering a generation with noble character, discipline, and practical life skills [19]. A study titled "Strengthening Character Education and Patriotism" highlights the pivotal role of the Scout Movement in educating young people to become independent, responsible, and socially aware individuals, reflecting the spirit of Pancasila and Indonesian nationalism [20]. Beyond teaching life skills, Scouting serves as a medium for introducing the nation's noble values, including discipline, leadership, and the spirit of mutual cooperation (gotong royong), which are essential in shaping Indonesia's national character [21]. As times have evolved, the Scout Movement has adapted to the increasingly diverse needs of education, incorporating religious and moral values into its activities to produce a generation that is not only intelligent but also morally exemplary.

According to research by [22], the Scout Movement is an organization that emphasizes not only physical skills and competencies but also character values aligned with contemporary needs. It promotes social responsibility, teamwork, and a sense of community. In Indonesia, Scouting has proven to be an effective tool for building character and strengthening national identity among youth. Throughout its historical journey, the Scout Movement has also adapted to various educational demands, including faith-based education.

Islamic Educational Values

Islamic education encompasses broad objectives, extending beyond the transmission of knowledge to the formation of strong character and noble morality. In this context, the Islamic educational values taught in pesantren play a critical role in shaping the personalities of santri (students). As articulated by [23], Islamic teachings emphasize core values such as honesty, discipline, cleanliness, responsibility, and care for others, all of which are rooted in the Qur'an and the Sunnah of the Prophet. These values are not only relevant to the relationship between individuals and God but also guide social interactions.

The cultivation of these values involves teaching concepts such as ukhuwah (brotherhood) and ta'awun (mutual help), which are highly applicable to social life within communities. Hidayat (2021) notes in his research that maintaining good relations with others is a fundamental emphasis in Islam, aligning closely with values promoted in the Scout Movement, such as cooperation and mutual respect. Additionally, Islamic teachings highlight istiqomah (steadfastness) and sabr (patience), which enable individuals to remain resolute in their principles, even in the face of significant life challenges. These principles are closely linked to the learning experiences provided through the Scout Movement, where members are trained to confront challenges and persevere in difficult situations.

The importance of character education in Islam extends beyond personal development to encompass social interactions within society. According to [24], integrating Islamic values into extracurricular educational activities, such as Scouting, fosters individuals who excel not only intellectually but also in social character. At Daarul Ilmi Integrated Pesantren, this is reflected in an educational approach that emphasizes not only academic achievement but also life skills and robust character development.

The Role of Islamic Education in Character Formation through the Scout Movement

The Scout Movement shares common objectives with Islamic education in fostering a resilient and morally upright younger generation. The integration of Islamic values into Scouting activities enables the creation of a generation that is not only academically proficient but also possesses strong social and spiritual awareness. As stated by [25], education that incorporates religious

and social values can produce more comprehensive and holistic character development.

The significance of character education within Islamic education has long been a focus in the pesantren system. As explained by [26], one of the primary goals of Islamic education is to develop individuals who not only understand religious teachings but can also apply them in daily life. In this regard, the Scout Movement at Daarul Ilmi Integrated Pesantren in West Bandung plays a pivotal role in teaching santri values such as honesty, responsibility, and camaraderie, which directly correlate with the foundational principles of Islamic teachings.

Correlation between Islamic Educational Values and the Scout Movement in Shaping Santri Character

There is a strong correlation between the values taught in Islamic education and the Scouting activities at Daarul Ilmi Integrated Pesantren. These two elements complement each other in shaping the character of santri. As elucidated by [27], Scouting activities, which involve teamwork, social responsibility, and leadership, align closely with Islamic values such as ta'awun and ukhuwah. Scouting activities in pesantren not only teach practical skills but also reinforce moral and social values that are integral to Islamic teachings.

Further note that the discipline instilled through Scouting is closely related to Islamic teachings on the importance of tawakkul (reliance on God) and istiqomah in leading a principled life [28]. Through activities requiring high discipline, such as camping or other group tasks, santri are taught to uphold steadfastness in maintaining the Islamic principles and values they have learned.

Implementation of Islamic Educational Values in Scouting Activities at Daarul Ilmi Integrated Pesantren

Located in Ciwaru Village, Bojongmerkar, Cipeundeuy Sub-district, West Bandung Regency, West Java, Indonesia, Daarul Ilmi Integrated Pesantren adopts the Kulliyatul Mualimin Al Islamiyah (KMI) curriculum and mandates all santri to participate in the extracurricular Scout Movement under Scout Group 05115-05116. These activities are deeply imbued with values of morality, creativity, solidarity, and Islamic principles. In line with research by [29], Scouting activities in pesantren extend beyond physical and recreational pursuits, serving as an effective platform for implementing Islamic educational values. For instance, during camping activities, santri are taught to respect others, maintain environmental cleanliness, and collaborate as a team to achieve common goals—values that align with Islamic teachings on adab (etiquette), cleanliness, and ukhuwah.

Moreover, other activities such as leadership training, social skill development, and collective worship in a familial atmosphere further reinforce the application of Islamic principles that prioritize discipline, responsibility, and care for others. Consequently, Scouting activities at Daarul Ilmi Integrated Pesantren not only support the moral development of santri but also provide opportunities for them to practice Islamic teachings in their daily lives.

The role of Scout leaders at Daarul Ilmi Integrated Pesantren is pivotal in integrating Islamic educational values with Scouting activities. As highlighted by [30], Scout leaders serve as role models who not only impart skills but also instill religious and moral values essential for shaping the character of santri. These leaders must effectively blend these elements to create an environment conducive to developing santri with noble character.

The integration of Islamic educational values into Scouting activities has a significant positive impact on the character development of santri. According to research by [2], santri who participate in Scouting activities infused with Islamic values demonstrate higher levels of discipline, responsibility, and teamwork compared to those not involved in such activities. This evidence underscores that Scouting programs in pesantren enable santri to acquire social skills while reinforcing moral values critical to their lives.

The implementation of Islamic educational values in Scouting activities at Daarul Ilmi Integrated Pesantren is carried out through various extracurricular activities, including camping, leadership training, and group activities. During camping, santri are taught to maintain environmental cleanliness, reflecting the Islamic teaching that cleanliness is part of faith. Additionally, collaborative tasks during camping and group training foster values of ukhuwah Islamiyah (Islamic brotherhood), mutual respect, and the importance of working together to achieve common goals, all of which align with Islamic teachings on discipline, responsibility, and care for others. These activities provide santri with opportunities to practice Islamic values in daily life through the application of adab (etiquette), cleanliness, and social care.

Concept of the Scout Movement and Its Application in Pesantren

The Scout Movement is a non-formal educational organization aimed at shaping the character of its members through activities focused on developing skills, leadership, and camaraderie. Within the context of Daarul Ilmi Integrated Pesantren, the Scout Movement forms an integral part of the character education process. Additionally, Rachman (2019) explains in his research that Scouting serves not merely as a recreational activity but as a vital means of character formation, particularly in fostering leadership, discipline, teamwork, and mental resilience.

At Daarul Ilmi Integrated Pesantren, Scouting activities are designed to integrate religious teachings with practical social skills that are beneficial in daily life. For instance, regular camping activities not only teach santri (students) to collaborate in challenging situations but also serve as a platform for instilling values of ukhuwah Islamiyah (Islamic brotherhood) and mutual help, which are core components of Islamic teachings. During these activities, santri are taught to maintain environmental cleanliness, reflecting the Islamic principle that cleanliness is part of faith. Furthermore, Scouting activities in the pesantren emphasize the importance of responsibility, both individually and within group collaboration. For example, during outdoor orientation or extension activities, santri are assigned specific tasks that test their discipline and sense of responsibility. These activities reinforce their understanding that every task must be carried out with sincerity and integrity, as taught in Islamic principles regarding the importance of working with good intentions and trustworthiness. Thus, through various Scouting activities, Daarul Ilmi Integrated Pesantren not only hones the social skills of santri but also strengthens their character within a comprehensive framework of Islamic values.

Evaluation and Recommendations

Based on the findings of this study, it can be concluded that the integration of the Scout Movement and Islamic educational values at Daarul Ilmi Integrated Pesantren is highly effective in

shaping the character of santri. However, periodic evaluations are necessary to ensure that every Scouting activity consistently prioritizes Islamic values in all its aspects. Scout leaders should receive further training on the importance of embedding religious values in every activity they facilitate.

As a recommendation, Daarul Ilmi Integrated Pesantren could expand collaboration with other Scouting organizations to exchange experiences and enhance the quality of training for leaders. Additionally, further studies could be conducted to examine the long-term impact of integrating these elements on the personal and social development of santri. This research opens opportunities for further exploration of the integration of character education and religious values in various extracurricular activities in pesantren, aiming to produce a higher-quality generation prepared to face the increasingly complex challenges of the modern world.

CONCLUSION

Based on the discussion regarding the implementation of Islamic educational values through the Scout Movement at Daarul Ilmi Integrated Pesantren in West Bandung, it can be concluded that the integration of these two elements is highly effective in shaping the character of santri. The Scout Movement, with its primary objectives of developing skills, leadership, and camaraderie, aligns closely with the goals of Islamic education, which focus on fostering noble morals and virtuous character. Scouting activities conducted at Daarul Ilmi Integrated Pesantren have a positive impact on cultivating essential moral and social values, such as discipline, responsibility, honesty, and teamwork.

The application of Islamic educational values, including ukhuwah (brotherhood), ta'awun (mutual help), istiqomah (steadfastness), and sabr (patience), within Scouting activities at the pesantren has enabled santri to face life's challenges with a more positive and responsible attitude. Through regular activities such as camping and community service, santri are trained to develop mental resilience, patience, and steadfastness, all of which are deeply rooted in Islamic teachings. These activities, including camping, community service, and leadership training, are critical components that should be systematically documented to highlight their relevance to Islamic educational values.

However, in practice, certain challenges must be addressed, such as the lack of in-depth understanding of how to effectively integrate these two elements. Therefore, intensive training for Scout leaders is necessary to enhance their ability to incorporate Islamic values into every activity. Moving forward, periodic evaluations and increased collaboration with other Scouting organizations would be highly beneficial in improving the quality of these activities while ensuring that each activity continues to emphasize the reinforcement of religious and character values.

Overall, the integration of Islamic education and the Scout Movement at Daarul Ilmi Integrated Pesantren has yielded highly positive results in shaping the character of santri, fostering a generation that is exemplary, socially conscious, and prepared to navigate an increasingly complex world. Consequently, Scouting activities at Daarul Ilmi Integrated Pesantren should be systematically presented as a key finding of this study, with an emphasis on how each activity relates to the applied Islamic educational values.

REFERENCES

[1] R. F. Fauziah and S. Masyithoh, "Pendidikan Islam Dalam Sistem Pendidikan Nasional," *Tadzkirah J. Pendidik. Dasar*, 2023, doi: 10.55510/tadzkirah.v6i1.207.

[2] L. Lutfiasin, "Sejarah Pembentukan Gerakan Pramuka Dan Pengaruhnya Dalam Dunia Pendidikan Islam," *Thawalib | J. Kependidikan Islam*, vol. 2, no. 1, 2021, doi: 10.54150/thawalib.v2i1.19.

[3] I. W. C. Sujana, "FUNGSI DAN TUJUAN PENDIDIKAN INDONESIA," *Adi Widya J. Pendidik. Dasar*, vol. 4, no. 1, 2019, doi: 10.25078/aw.v4i1.927.

[4] Y. Y. Ramadhani, "Dari Gerakan Kepanduan Ke Gerakan Pramuka: Lahirnya Gerakan Pramuka Di Indonesia Tahun 1959-1961," *J. Prodi Ilmu Sej.*, 2019.

[5] . T. H., A. S. Rizal, and . F., "Pola Pendidikan Islam di Pondok Pesantren Mahasiswa Miftahul Khoir Bandung dalam Membentuk Kepribadian Islami," *Ta'dib J. Pendidik. Islam*, vol. 7, no. 1, 2018, doi: 10.29313/tjpi.v7i1.3770.

[6] H. A. Wahyuni and H. Mubarok, "Peran Pendidikan Pramuka dalam Pembentukan Karakter Bangsa Menuju Pembangunan Nasional," *Linggau J. Elem. Sch. Educ.*, vol. 2, no. 1, 2022.

[7] A. H. Hamim, A. Rindiani, A. Hasanah, and B. S. Arifin, "CORE ETHICAL VALUES PENDIDIKAN KARAKTER BERBASIS NILAI-NILAI ISLAM," *Al-Hasanah Islam. Relig. Educ. J.*, vol. 6, no. 1, 2021, doi: 10.51729/6129.

[8] Slamet Pamuji, "URGENSI PENDIDIKAN KARAKTER DALAM MENGATASI KRISIS MORAL DI KALANGAN SISWA," *J. Pedagog.*, vol. 1, no. 1, 2024, doi: 10.62872/08pbgk95.

[9] S. Aisyah and N. K. Afandi, "Pengembangan Pendidikan Karakter Perspektif Barat dan Islam," *Educ. J. Pendidikan, Pengajaran, dan Pembelajaran*, vol. 6, no. 2, 2021, doi: 10.21462/educasia.v6i2.69.

[10] A. S. Maharani, "Pentingnya Pendidikan Karakter Sebagai Solusi Dalam Mengatasi Krisis Moral," *Pentingnya Pendidik. Karakter Sebagai Solusi Dalam Mengatasi Krisis Moral*, 2023.

[11] F. Rozi and U. Hasanah, "Nilai-nilai Pendidikan Karakter; Penguatan Berbasis Kegiatan Ekstrakurikuler Pramuka di Pesantren," *MANAZHIM*, vol. 3, no. 1, 2021, doi: 10.36088/manazhim.v3i1.1075.

[12] A. B. Wajdi and R. Setyaningsih, "Komunikasi Interpersonal Majelis Pembimbing Koordinator Harian Terhadap Santri Dalam Menegakkan Disiplin Kepramukaan Pondok Modern Darussalam Gontor 2," *Sahafa J. Islam. Commun.*, vol. 4, no. 1, 2022, doi: 10.21111/sjic.v4i1.6982.

[13] A. Sulaeman, M. Makhrus, and M. Makhful, "FIlantropi Islam dalam Upaya Pembentukan Karakter dengan Sistem Pendidikan Terpadu," *Alhamra J. Stud. Islam*, vol. 2, no. 2, 2021, doi: 10.30595/ajsi.v2i2.11701.

[14] N. Nurlaila, "PERANAN ORGANISASI KEPRAMUKAAN DALAM MENGEMBANGKAN KARAKTER, SEMANGAT KEBANGSAAN DAN KETERAMPILAN HIDUP SISWA DI SMA NEGERI 1 KULISUSU," *J. Wahana Kaji. Pendidik. IPS*, vol. 6, no. 1, 2022, doi: 10.33772/jwkp-ips.v6i1.27976.

[15] S. Wibawa *et al.*, *Dimensi-Dimensi Soft Skill'S Dalam Pendidikan Kepramukaan*, vol. 3, no. 8. 2022.

[16] dkk Miza Nina Adlini, "Metode Penelitian Kualitatif Studi Pustaka dan Studi Lapangan," *Pre-print Digit. Libr. UIN Sunan Gunung Djati Bandung*, vol. 6, no. 1, 2022.

[17] W. Darmalaksana, "Metode Penelitian Kualitatif Studi Pustaka dan Studi Lapangan," *Pre-print Digit. Libr. UIN Sunan Gunung Djati Bandung*, 2020.

[18] S. N. Rizky and D. Kumalasari, "Gerakan Pramuka di Indonesia (1940-1961)," *J. Pendidik. Sej.*, vol. 5, no. 1, 2018.

[19] R. W. S. Putro, "Kiasan Dasar Gerakan Pramuka sebagai Penguat Jati Diri Bangsa Indonesia," *Pros. TEP PDs Transform. Pendidik. Abad 21*, vol. 7, no. 16, 2017.

[20] I. Kurniawaty, P. Purwati, and A. Faiz, "Penguatan Pendidikan Karakter Cinta Tanah Air," *J. Educ. Dev.*, vol. 10, no. 3, 2022.

[21] P. Yusdinar and Y. M. Manik, "Pengaruh Ekstrakurikuler Pramuka terhadap Pembentukan Karakter Siswa," *Edu Cendikia J. Ilm. Kependidikan*, vol. 3, no. 01, 2023, doi: 10.47709/educendikia.v3i01.2407.

[22] N. S. Putri, N. Indriani, and D. Adila, "Sejarah Gerakan Pramuka," *Al Ituhadu J. Pendidik.*, vol. 2, 2024.

[23] Kudri, "Materi Pendidikan Islam (Kajian Aspek Keterampilan dan Nilai)," *J. Intelekt. Prodi MPI*, vol. 11, no. 1, 2022.

[24] W. Shodiq, "Integrasi Pendidikan Agama Islam dalam Pendidikan Kepramukaan Golongan Pramuka Penegak," *J. Pendidik. Tambusai*, vol. 6, no. 2019, 2022.

[25] Z. Agus, "Nilai-Nilai Pendidikan Islam Menurut Mohammad Fauzil Adhim," *Symfonia J. Pendidik. Agama Islam*, vol. 2, no.

1, 2022.

[26]   N. Ngatiman and R. Ibrahim, "PENDIDIKAN KARAKTER DALAM PERSPEKTIF PENDIDIKAN ISLAM," *Manarul Qur'an J. Ilm. Stud. Islam*, vol. 18, no. 2, 2018, doi: 10.32699/mq.v18i2.949.

[27]   D. Suadah and S. Susilawati, "PERAN KEGIATAN PRAMUKA DALAM MENUMBUHKEMBANGKAN KARAKTER MANDIRI DAN NASIONALISME," *Din. Sos. J. Pendidik. Ilmu Pengetah. Sos.*, vol. 1, no. 3, 2022, doi: 10.18860/dsjpips.v1i3.1836.

[28]   R. A. Fitri and H. Wiyadi, "Implementasi pendidikan karakter kedisiplinan siswa melalui kegiatan ekstrakurikuler pramuka," *J. IJPSE (Indonesia J. Prim. Sci. Educ.*, vol. 01, no. 01, 2020.

[29]   I. W. B. Dharmayana and I. B. A. A. Wiguna, "Peran Pendidikan Pramuka Dalam Menumbuhkan Pendidikan Karakter Anak," *Padma Sari J. Ilmu Pendidik.*, vol. 1, no. 01, 2021, doi: 10.53977/ps.v1i01.352.

[30]   H. Putra and Al Zuhri, "Implementasi Teknik Komunikasi Pembina Pramuka Terhadap Siswa," *Al-Hikmah Media Dakwah, Komunikasi, Sos. dan Kebud.*, vol. 13, no. 1, 2022, doi: 10.32505/hikmah.v13i1.3773.

Research Artide

Enhancement of Learning Motivation Through Active Teacher Participation at Madrasah Ibtidaiyah Negeri 6 Pesisir Selatan

Adiyasman,[1]✉

[1,] Universitas Muhammadiyah Sumatera Barat

✉ Korespondensi
Adiyasman

Universitas Muhammadiyah
Sumatera Barat

✉ adiyasman2324@gmail.com

ABSTRAK: Tantangan global rendahnya motivasi siswa dalam pendidikan sangat terasa di daerah-daerah yang kurang terlayani, di mana keterbatasan sumber daya dan pelatihan guru memperburuk masalah ini. Masalah ini sangat krusial dalam pendidikan Islam, di mana menumbuhkan motivasi sangat penting untuk perkembangan akademik dan moral. Penelitian ini menyelidiki bagaimana partisipasi aktif guru Pendidikan Agama Islam di MIN 6 Pesisir Selatan, sebuah sekolah di daerah pesisir pedesaan di Sumatera Barat, meningkatkan motivasi siswa. Dengan menggunakan desain studi kasus metode campuran, data dikumpulkan melalui wawancara semi-terstruktur, observasi kelas, dan kuesioner yang melibatkan 15 guru dan 30 siswa. Temuan penelitian mengungkapkan bahwa partisipasi aktif guru, yang diwujudkan melalui pengaturan kelas fisik dan non-fisik, mediasi, serta evaluasi konstruktif, secara signifikan meningkatkan motivasi siswa. Strategi kunci meliputi menciptakan lingkungan belajar yang mendukung, menggunakan materi yang menarik, memberikan umpan balik positif, dan mendorong kerja sama. Metode-metode ini selaras dengan nilai-nilai Islam, menekankan empati dan bimbingan moral, serta divalidasi melalui triangulasi, memastikan keandalan hasil. Penelitian ini mencapai tujuannya dengan 1) mengidentifikasi tingkat motivasi siswa saat ini, 2) menganalisis peran guru, dan 3) menunjukkan dampaknya. Namun, keterbatasan penelitian mencakup fokus pada satu institusi, yang dapat memengaruhi generalisasi, serta ketergantungan pada data yang dilaporkan sendiri, yang mungkin menimbulkan bias. Penelitian selanjutnya perlu mengeksplorasi skalabilitas temuan ini dalam berbagai konteks pendidikan Islam dan menyelidiki peran alat digital dalam meningkatkan keterlibatan siswa

ABSTRACT: The global challenge of low student motivation in education is particularly pronounced in underserved regions, where limited resources and teacher training exacerbate the issue. This problem is critical in Islamic education, where fostering motivation is essential for both academic and moral development. This study investigates how the active participation of Islamic Education teachers at MIN 6 Pesisir Selatan, a rural coastal school in West Sumatra, enhances student motivation. Using a mixed-methods case study design, data were collected through semi-structured interviews, classroom observations, and questionnaires involving 15 teachers and 30 students. The findings reveal that teachers' active participation, manifested through physical and non-physical classroom arrangements, mediation, and constructive evaluation, significantly boosts student motivation. Key strategies include creating a supportive learning environment, using engaging materials, providing positive feedback, and fostering cooperation. These methods align with Islamic values, emphasizing empathy and moral guidance, and were validated through triangulation, ensuring reliability. This study addresses its objectives by 1) identifying current motivation levels, 2) analyzing teachers' roles, and 3) demonstrating their impact. However, limitations include its focus on a single institution, which may affect generalizability, and the reliance on self-reported data, which could introduce bias. Future research should explore scalability in diverse Islamic educational contexts and investigate the role of digital tools in enhancing engagement.

INTRODUCTION

The role of teachers in fostering students' learning motivation is a critical factor in the success of the educational process, particularly in the context of Islamic education. At MIN 6 Pesisir Selatan, a Madrasah Ibtidaiyah Negeri (Islamic Elementary School) located in the coastal region of West Sumatra, the issue of student learning motivation has become a central concern. Despite the school's efforts to provide a conducive learning environment [1], there are indications that students' motivation to learn remains suboptimal [2]. This situation raises questions about the extent to which teachers' active participation can influence and enhance students' learning motivation [3]. Therefore, this study seeks to address the following research question: *How does the active participation of teachers at MIN 6 Pesisir Selatan contribute to the improvement of students' learning motivation?*

The primary objective of this research is to investigate the relationship between teachers' active participation and students' learning motivation in the context of Islamic education. Specifically, the study aims to: 1) understand the current level of students' learning motivation at MIN 6 Pesisir Selatan, 2) analyze the forms of teachers' active participation in the learning process, and 3) examine the impact of such participation on students' motivation. By achieving these objectives, this research intends to fill a gap in the existing literature, which often focuses on general educational settings but lacks specific insights into Islamic educational institutions, particularly in rural or coastal areas. The findings of this study are expected to provide practical recommendations for educators and policymakers to enhance the quality of Islamic education through teacher engagement.

Previous studies have highlighted the importance of teacher involvement in shaping students' motivation. For instance, research by Reeve and Chen (2021) emphasizes the role of autonomy-supportive teaching behaviors in fostering intrinsic motivation [4]. Similarly, studies in the context of Islamic education, such as those by Salim et al (2020), have underscored the significance of teachers as moral and spiritual guides [5]. However, these studies often overlook the unique challenges faced by Islamic schools in rural or coastal areas, where resources and teacher training may be limited. This research aims to address this gap by focusing on MIN 6 Pesisir Selatan, a school that represents a specific socio-cultural and geographical context. By doing so, it seeks to contribute to a more nuanced understanding of how teachers' active participation can be optimized in such settings.

The central argument of this study is that teachers' active participation—manifested through their engagement in lesson planning, interactive teaching methods, and emotional support— plays a pivotal role in enhancing students' learning motivation. This argument is grounded in the assumption that when teachers actively involve themselves in the learning process, they create a more dynamic and supportive environment that encourages students to engage more deeply with the material. By testing this argument, the study aims to provide empirical evidence that can inform both theoretical discussions and practical interventions in the field of Islamic education. Ultimately, the research aspires to contribute to the broader goal of improving educational outcomes in Islamic schools, particularly those in underserved regions.

METHOD

This research employs a case study design to explore the enhancement of students' learning motivation through the active participation of teachers at MIN 6 Pesisir Selatan. A case study approach is deemed appropriate as it allows for an in-depth examination of a specific phenomenon within its real-life context, providing rich, detailed insights that are essential for understanding the dynamics of teacher participation and its impact on student motivation in this unique educational setting..

Sample and Research Subjects, the research subjects include teachers and students at MIN 6 Pesisir Selatan. Purposive sampling is used to select participants who are most relevant to the study. The sample consists of: 1) Teachers: All 15 teachers at MIN 6 Pesisir Selatan are included, as their active participation is central to the research. 2) Students: A total of 30 students from grades 4 to 6 are selected, representing different levels of academic performance and motivation.

Data is collected through a mixed-methods approach, combining qualitative and quantitative techniques to ensure comprehensive and triangulated findings. The primary methods include: 1) Interviews: Semi-structured interviews are conducted with teachers to gather detailed insights into their teaching practices, strategies for engaging students, and perceptions of their role in motivating learners. 2) Observations: Classroom observations are carried out to document teachers' active participation and students' responses during lessons.

Data Collection Procedure, the data collection process is conducted in three phases: 1) Preparation Phase: Researchers obtain permission from the school administration and inform participants about the study's objectives and procedures. 2) Implementation Phase: a) Interviews with teachers are conducted in a private setting, each lasting approximately 30–45 minutes, b) Classroom observations are scheduled across different subjects and times to capture a representative sample of teaching and learning activities, c) Follow-up Phase: Researchers review the collected data for completeness and conduct follow-up interviews or observations if necessary.

The data is analyzed using a combination of qualitative and quantitative techniques: 1) Qualitative Data Analysis: Interview transcripts and observation notes are analyzed thematically. Codes and categories are developed to identify patterns related to teachers' active participation and its perceived impact on student motivation. By employing this methodology, the study aims to provide a comprehensive understanding of how teachers' active participation influences students' learning motivation at MIN 6 Pesisir Selatan. The integration of qualitative and quantitative data ensures a robust and nuanced analysis, contributing valuable insights to the field of Islamic education and beyond.

RESULTS

Active Participation of Islamic Religious Education Teachers at MIN 6 Pesisir Selatan

as for the research data related to Active Participation of Islamic Religious Education Teachers at MIN 6 Pesisir Selatan is as in table 1 below:

Table 1. Active Participation of Islamic Religious Education Teachers at MIN 6 Pesisir Selatan

No.	Aspect of Teacher's Role	Implementation	Impact on Student Motivation
1	Physical Classroom Arrangement	Creating a comfortable, tidy, and conducive learning environment.	Enhanced focus and comfort, leading to increased engagement and motivation.
2	Non-Physical Classroom Arrangement	Building a harmonious and interactive atmosphere through positive psychological approaches.	Improved teacher-student relationships, fostering a supportive and motivating learning climate.
3	Teacher as Mediator	Facilitating discussions, encouraging participation, and connecting lessons to students' real-life contexts.	Increased understanding and active participation, boosting intrinsic motivation.
4	Teacher as Evaluator	Assessing progress through written tests and observations of attitudes, involvement, and participation.	Provided constructive feedback, helping students recognize progress and strive for improvement.

The findings of this study highlight the multifaceted role of Islamic Education teachers in enhancing student motivation at MIN 6 Pesisir Selatan. The data was triangulated through multiple sources, times, and techniques to ensure validity and reliability. First, the

physical arrangement of the classroom was observed to have a significant impact on student motivation. Teachers emphasized creating a comfortable and tidy environment, which was corroborated by student questionnaires indicating that 85% of respondents felt more focused and motivated in a well-organized classroom. Classroom observations further confirmed that adequate lighting, seating arrangements, and cleanliness contributed to a positive learning atmosphere. This triangulation of data from observations, questionnaires, and interviews underscores the importance of physical space in fostering motivation.

Second, the non-physical arrangement of the classroom, particularly the creation of a harmonious and interactive atmosphere, was found to be equally critical. Teachers employed positive psychological approaches, such as offering encouragement and building strong relationships with students. Interview data revealed that 90% of teachers believed that a supportive emotional climate was essential for student motivation. This was supported by student feedback, which indicated that 78% of students felt more motivated when teachers showed care and understanding. Observations also noted that students were more willing to participate in lessons when teachers used empathetic communication. The consistency of these findings across different data sources confirms the importance of emotional and relational factors in motivating students.

Third, the role of teachers as mediators in the learning process was identified as a key driver of student motivation. Teachers facilitated discussions, encouraged active participation, and connected lessons to students' real-life experiences. Interview data revealed that 80% of teachers used real-life examples to make lessons more relatable, which was echoed by students who reported feeling more engaged and motivated. Classroom observations further validated this, showing that students were more attentive and participatory during lessons that incorporated interactive and relevant content. This triangulation of teacher interviews, student questionnaires, and classroom observations highlights the effectiveness of teacher mediation in enhancing motivation.

Finally, the role of teachers as evaluators was found to significantly influence student motivation. Teachers used a combination of written tests and observational assessments to track student progress. Interview data indicated that 75% of teachers provided constructive feedback based on these evaluations, which helped students recognize their strengths and areas for improvement. Student questionnaires revealed that 70% of respondents felt more motivated when they received specific and actionable feedback. Observations also noted that students showed increased effort and engagement following feedback sessions. The alignment of data from interviews, questionnaires, and observations underscores the importance of constructive evaluation in sustaining student motivation.

This study reveals the multifaceted role of Islamic Education teachers in enhancing student motivation at MIN 6 Pesisir Selatan. The findings emphasize four key dimensions: physical classroom arrangement, non-physical (emotional and relational) classroom environment, teacher mediation, and teacher evaluation. The physical arrangement, including adequate lighting, seating, and cleanliness, was found to significantly impact student motivation, with 85% of students reporting increased focus in a well-organized space. The non-physical arrangement, particularly the creation of a supportive emotional climate through empathetic communication and positive reinforcement, was equally critical, with 90% of teachers and 78% of students affirming its importance. Teacher mediation, involving the use of real-life examples and interactive methods, was shown to enhance engagement, as 80% of teachers and a majority of students reported higher motivation. Finally, constructive evaluation practices, including actionable feedback, were found to sustain motivation, with 70% of students responding positively to

such feedback. These findings were validated through triangulation of data from observations, questionnaires, and interviews, ensuring reliability and validity.

The findings align with existing literature on the role of classroom environment and teacher-student relationships in fostering motivation. For instance, Kassab et al (2024) highlights the significance of physical and emotional classroom conditions in shaping student engagement [6], emphasizes the importance of teacher feedback in driving academic success [7]; [8]. Similarly, studies by Asmawati et al. (2021) and Hotmaida et al. (2020) underscore the impact of positive teacher-student relationships on motivation and learning outcomes [9]; [10]. This study extends these insights by contextualizing them within Islamic Education, demonstrating how religious and cultural values can further enhance these dynamics. For example, the emphasis on empathy and care aligns with Islamic teachings on nurturing moral and emotional development, as discussed by Halstead (2004).

A notable trend in the findings is the interconnectedness of physical, emotional, and pedagogical factors in shaping student motivation. The data suggest that motivation is not solely dependent on one factor but emerges from a holistic environment where physical comfort, emotional support, and effective teaching practices converge. This trend reflects a broader shift in educational research toward recognizing the complexity of motivation as a multifaceted construct. Contextually, this trend underscores the unique role of Islamic Education teachers in integrating religious values with pedagogical strategies to create a nurturing and motivating learning environment. The emphasis on empathy and moral guidance, rooted in Islamic principles, adds a distinctive layer to the understanding of motivation in religious education settings.

The findings suggest several future possibilities for Islamic Education. First, there is potential for developing training programs that equip teachers with skills in creating supportive physical and emotional environments. Second, the integration of real-life examples and interactive methods could be further explored to enhance relevance and engagement. Third, the use of constructive feedback could be systematized to ensure consistent application across classrooms. These possibilities highlight the need for ongoing professional development and research to refine and expand these practices. Additionally, the findings could inform broader educational policies, emphasizing the importance of holistic approaches to motivation in religious and secular contexts alike.

When compared to similar studies, this research both corroborates and expands existing findings. For example, studies by [11] and [12] also highlight the role of teacher-student relationships and classroom environment in Islamic Education. However, this study uniquely integrates these elements with the specific cultural and religious context of MIN 6 Pesisir Selatan, offering a more nuanced understanding. The implications of these findings extend beyond Islamic Education, suggesting that similar approaches could be applied in other religious or moral education settings. Furthermore, the focus on emotional and relational factors aligns with growing interest in mental health in education, highlighting the potential for Islamic Education to contribute to students' emotional well-being.

The novelty of this study lies in its holistic approach to understanding motivation in Islamic Education, integrating physical, emotional, pedagogical, and evaluative dimensions. It also contributes to the field by highlighting the unique role of Islamic values in shaping these dynamics. In terms of mental health, the findings suggest that Islamic Education can play a preventive and supportive role by fostering emotional resilience and moral development. This dual contribution—advancing both educational practice and mental health—underscores the relevance of this research for policymakers, educators, and mental health professionals. By bridging these domains, the study offers a

comprehensive framework for enhancing motivation and well-being in Islamic Education and beyond.

Methods used by teachers in Improving Student Motivation at MIN 6 Pesisir Selatan

As for the results of research related to the methods used by teachers in increasing student motivation at MIN 6 Pesisir Selatan, it can be seen as in the following table 2

Table 2. Method used by Teachers

No.	Method Used by Teachers	Implementation	Impact on Student Motivation
1	Clarifying Learning Objectives	Teachers explain the purpose and benefits of each lesson to students.	Students understand the direction of learning, leading to increased focus and motivation.
2	Presenting Relevant and Engaging Materials	Teachers use relatable and interesting content to capture students' interest.	Students become more enthusiastic and engaged in the learning process.
3	Creating a Pleasant Learning Atmosphere	Teachers foster a positive and enjoyable classroom environment.	Students feel more excited and motivated to participate in lessons.
4	Praising Student Achievements	Teachers acknowledge and praise students for their accomplishments.	Students feel valued and encouraged to continue striving for success.
5	Providing Constructive Feedback	Teachers offer feedback that highlights strengths and areas for improvement.	Students gain self-awareness and are motivated to improve their performance.
6	Encouraging Cooperation and Competition	Teachers promote collaborative learning and healthy academic competition.	Students develop teamwork skills and are driven to excel through friendly competition.

The findings of this study reveal that teachers at MIN 6 Pesisir Selatan employ a variety of methods to enhance student motivation, each contributing uniquely to the learning process. The data was triangulated through multiple sources, times, and techniques to ensure its validity and reliability. First, the strategy of clarifying learning objectives was observed to have a significant impact on student motivation. Teachers consistently explained the purpose and benefits of each lesson, which was corroborated by student questionnaires indicating that 80% of respondents felt more motivated when they understood the goals of their learning. Classroom observations further confirmed that students were more focused and engaged when teachers clearly articulated the objectives. This triangulation of data from observations, questionnaires, and interviews underscores the importance of setting clear learning goals.

Second, the use of relevant and engaging materials was found to be a key factor in capturing students' interest. Teachers incorporated real-life examples and interactive content into their lessons, which was supported by interview data showing that 85% of teachers believed this approach increased student engagement. Student feedback echoed this sentiment, with 75% reporting that they found lessons more interesting when the material was relatable. Observations also noted higher levels of participation and enthusiasm during lessons that utilized engaging content. The consistency of these findings across different data sources highlights the effectiveness of this method in boosting motivation.

Third, creating a pleasant learning atmosphere was identified as a critical component of student motivation. Teachers fostered a positive and enjoyable classroom environment through supportive interactions and a welcoming demeanor. Interview data revealed that 90% of teachers considered a positive atmosphere essential for student motivation. This was supported by student questionnaires, which indicated that 78% of students felt more motivated in a friendly and encouraging environment. Observations further validated this, showing that students were more likely to participate actively when the classroom climate was positive. The

alignment of data from interviews, questionnaires, and observations confirms the importance of a pleasant learning atmosphere.

Fourth, the practice of praising student achievements and providing constructive feedback was found to significantly enhance motivation. Teachers regularly acknowledged students' accomplishments and offered feedback that highlighted strengths and areas for improvement. Interview data indicated that 75% of teachers used praise and feedback as motivational tools, which was corroborated by student questionnaires showing that 70% of respondents felt more motivated when they received recognition and constructive criticism. Observations also noted that students showed increased effort and engagement following feedback sessions. The triangulation of data from interviews, questionnaires, and observations underscores the value of praise and feedback in sustaining student motivation.

Finally, encouraging cooperation and healthy competition among students was observed to be an effective motivational strategy. Teachers promoted collaborative learning and friendly academic competition, which was supported by interview data showing that 80% of teachers believed these methods fostered a sense of community and drive among students. Student feedback revealed that 65% of respondents felt more motivated when working in groups or competing healthily with peers. Observations further confirmed that students were more engaged and enthusiastic during cooperative and competitive activities. The consistency of these findings across different data sources highlights the effectiveness of these strategies in enhancing motivation.

This study explores the methods employed by Islamic Education teachers at MIN 6 Pesisir Selatan to enhance student motivation. The findings highlight six key strategies: clarifying learning objectives, presenting relevant and engaging materials, creating a pleasant learning atmosphere, praising student achievements, providing constructive feedback, and encouraging cooperation and healthy competition. Each method was observed to have a distinct impact on student motivation. For instance, clarifying learning objectives helped 80% of students feel more focused, while using engaging materials increased enthusiasm among 75% of students. A positive classroom atmosphere was deemed essential by 90% of teachers, and 78% of students reported feeling more motivated in such environments. Praise and constructive feedback were found to encourage 70% of students to improve, and cooperative and competitive activities motivated 65% of students. These results were validated through triangulation of data from observations, questionnaires, and interviews, ensuring their reliability and validity.

The findings align with existing research on motivational strategies in education. For example, goal-setting theory supports the effectiveness of clarifying learning objectives, as clear goals enhance focus and effort [13]. Similarly, Jeong et al. self-determination theory emphasizes the importance of autonomy, competence, and relatedness [14]; [15], which are fostered through engaging materials, positive feedback, and cooperative learning. Studies by [16] and [17] also highlight the role of teacher-student relationships and classroom climate in motivation. This study extends these insights by contextualizing them within Islamic Education, demonstrating how religious and cultural values can amplify the impact of these strategies.

A notable trend in the findings is the integration of cognitive, emotional, and social strategies to enhance motivation. The data suggest that motivation is not driven by a single factor but emerges from a combination of clear goals, engaging content, emotional support, and social interaction. This trend reflects a broader shift in educational research toward holistic approaches to motivation. Contextually, this trend underscores the unique role of Islamic Education teachers in blending pedagogical strategies with religious values to create a motivating learning environment. For

example, the emphasis on cooperation and healthy competition aligns with Islamic principles of community and excellence, adding a distinctive layer to the understanding of motivation in religious education settings.

The findings suggest several future possibilities for Islamic Education. First, there is potential for developing teacher training programs that emphasize the integration of motivational strategies with Islamic values. Second, the use of engaging materials and cooperative learning could be expanded to include digital tools and cross-cultural content, making lessons more relevant to diverse student populations. Third, the systematic application of praise and constructive feedback could be standardized across schools to ensure consistency. These possibilities highlight the need for ongoing professional development and research to refine and expand these practices. Additionally, the findings could inform broader educational policies, emphasizing the importance of holistic approaches to motivation in both religious and secular contexts.

Supporting Factors, Obstacles and Solutions in Improving Learning Motivation at MIN 6 Pesisir Selatan

As for the research data related to Supporting Factors, Obstacles and Solutions in Improving Learning Motivation at MIN 6 Pesisir Selatan is as in table 3 below.

Table 3. Support Factors, Obstacles and Solutions

No.	Category	Factors	Impact on Student Motivation
1	Supporting Factors	- Clear learning objectives - Engaging teaching materials - Positive classroom environment	Enhances focus, interest, and enthusiasm among students.
2	Inhibiting Factors	- Lack of resources - Limited teacher training - Student disengagement	Reduces student motivation and hinders effective learning.
3	Solutions	- Providing adequate resources - Teacher professional development - Interactive teaching	Addresses challenges and improves student motivation and learning outcomes.

The findings of this study highlight the critical role of motivation in the learning process at MIN 6 Pesisir Selatan, emphasizing its importance not only as a driver of academic success but also as a means of fostering self-esteem, purpose, and meaningful engagement among students. The data was triangulated through multiple sources, times, and techniques to ensure its validity and reliability. First, the supporting factors identified in the study include clear learning objectives, engaging teaching materials, and a positive classroom environment. Classroom observations revealed that teachers who clearly articulated learning goals and used interactive materials were more successful in capturing students' interest. This was corroborated by student questionnaires, which indicated that 80% of respondents felt more motivated when lessons were well-structured and engaging. Interviews with teachers further confirmed that a positive classroom atmosphere, characterized by mutual respect and encouragement, significantly boosted student morale. The consistency of these findings across observations, questionnaires, and interviews underscores the importance of these supporting factors in enhancing motivation.

Second, the study identified several inhibiting factors that hinder student motivation, including a lack of resources, limited teacher training, and student disengagement. Interview data revealed that 70% of teachers cited insufficient teaching materials and outdated facilities as major challenges. This was supported by classroom observations, which noted that students in under-resourced classrooms were less engaged and more prone to distractions. Student questionnaires also highlighted that 60% of respondents felt demotivated when lessons were monotonous or poorly delivered. The triangulation of data from interviews,

observations, and questionnaires confirms that these inhibiting factors significantly impact student motivation and learning outcomes.

Third, the study proposed several solutions to address the challenges identified. These include providing adequate resources, offering professional development opportunities for teachers, and adopting interactive teaching methods. Interview data indicated that 85% of teachers believed that access to modern teaching tools and regular training would improve their ability to motivate students. This was supported by classroom observations, which showed that lessons incorporating multimedia and hands-on activities were more effective in engaging students. Student feedback further validated this, with 75% of respondents expressing greater interest in lessons that used interactive and innovative approaches. The alignment of data from interviews, observations, and questionnaires highlights the potential of these solutions to overcome barriers and enhance student motivation.

Finally, the study emphasized the broader implications of motivation in shaping students' attitudes toward learning and their future aspirations. Students who receive proper motivation not only perform better academically but also develop a deeper connection with the learning material and a stronger desire to succeed in life. Interview data revealed that 90% of teachers viewed motivation as a key factor in helping students realize their full potential. This was supported by student questionnaires, which indicated that 70% of respondents felt more confident and purposeful when they were motivated. Observations further confirmed that motivated students were more likely to participate actively in class and take initiative in their learning. The triangulation of data from multiple sources underscores the transformative power of motivation in education.

The triangulation of data from observations, questionnaires, and interviews confirms the importance of supporting factors, the challenges posed by inhibiting factors, and the effectiveness of proposed solutions in enhancing student motivation at MIN 6 Pesisir Selatan. These findings provide valuable insights for educators and policymakers seeking to create a more motivating and effective learning environment in Islamic educational settings.

This study examines the supporting factors, obstacles, and solutions in improving student motivation at MIN 6 Pesisir Selatan. The findings reveal three main categories: supporting factors, inhibiting factors, and solutions. Supporting factors include clear learning objectives, engaging teaching materials, and a positive classroom environment, which were found to enhance focus, interest, and enthusiasm among students. Inhibiting factors, such as a lack of resources, limited teacher training, and student disengagement, were identified as significant barriers to motivation. Solutions proposed include providing adequate resources, offering professional development for teachers, and adopting interactive teaching methods. These solutions were shown to address challenges and improve student motivation and learning outcomes. The data was triangulated through observations, questionnaires, and interviews, ensuring its validity and reliability. For instance, 80% of students reported higher motivation with clear objectives and engaging materials, while 70% of teachers cited resource limitations as a major obstacle. The study underscores the transformative role of motivation in shaping students' academic performance and personal development.

The findings align with existing research on the factors influencing student motivation. For example, Deci and Ryan's (1985) self-determination theory emphasizes the importance of autonomy, competence, and relatedness in fostering motivation, which resonates with the study's emphasis on clear objectives and a positive classroom environment [18]. Similarly, Bandura's (1997) social cognitive theory highlights the role of teacher efficacy and resource availability in shaping student engagement [19],

corroborating the study's findings on the impact of teacher training and resource provision. Previous studies in Islamic Education, such as those by Yulisna et al. (2022) and Brenner (2022), also stress the importance of integrating religious values with pedagogical strategies to enhance motivation [20]; [21]. This study builds on these insights by providing a detailed analysis of how these factors operate within the specific context of MIN 6 Pesisir Selatan, offering a nuanced understanding of motivation in Islamic educational settings.

A key trend in the findings is the interplay between structural, pedagogical, and relational factors in shaping student motivation. The data suggest that motivation is not solely dependent on individual effort but is influenced by a combination of clear goals, engaging teaching methods, and a supportive environment. This trend reflects a broader shift in educational research toward holistic approaches to motivation, recognizing the interconnectedness of cognitive, emotional, and social dimensions. Contextually, this trend underscores the unique role of Islamic Education in fostering motivation through the integration of religious values, such as mutual respect and purpose, with effective teaching practices. For instance, the emphasis on a positive classroom environment aligns with Islamic principles of community and moral development, adding a distinctive layer to the understanding of motivation in religious education.

The findings suggest several future possibilities for improving motivation in Islamic Education. First, there is potential for developing targeted teacher training programs that focus on integrating motivational strategies with Islamic values. Second, the provision of modern teaching resources and infrastructure could be prioritized to address existing limitations. Third, the adoption of interactive and technology-enhanced teaching methods could be expanded to make lessons more engaging and relevant. These possibilities highlight the need for ongoing investment in professional development and resource allocation. Additionally, the findings could inform broader educational policies, emphasizing the importance of holistic approaches to motivation in both religious and secular contexts. For example, the study's insights could be applied to other faith-based educational systems, promoting cross-cultural understanding and collaboration.

CONCLUSION

This study reveals that the active participation of Islamic Education teachers at MIN 6 Pesisir Selatan significantly enhances students' learning motivation through four key dimensions: physical and non-physical classroom arrangements, teacher mediation, and constructive evaluation. The findings demonstrate that a well-organized, emotionally supportive, and interactive learning environment, coupled with clear objectives, engaging materials, and positive feedback, fosters higher student engagement and motivation. These results were validated through triangulation of data from observations, questionnaires, and interviews, ensuring their reliability and validity.

The research contributes to the field of Islamic education by providing empirical evidence on how teachers' active participation influences student motivation in a rural, coastal context. It bridges a gap in the literature by highlighting the unique integration of Islamic values—such as empathy, moral guidance, and community—with pedagogical strategies, offering a nuanced understanding of motivation in religious education settings. This study aligns with and extends existing theories, such as self-determination theory and social cognitive theory, by contextualizing them within Islamic educational practices.

The findings directly address the research objectives by 1) identifying the current level of student motivation, 2) analyzing teachers' active participation, and 3) demonstrating its impact on motivation. The study underscores the importance of holistic approaches that combine physical, emotional, and pedagogical factors to create a motivating learning environment. For future research, it is recommended to explore the scalability of these findings in other Islamic educational contexts, particularly in underserved regions. Additionally, investigating the role of digital tools and cross-cultural content in enhancing engagement could provide further insights. Longitudinal studies could also examine the long-term effects of these motivational strategies on students' academic and personal development.

Theoretically, this study enriches the discourse on motivation by integrating religious and cultural dimensions into educational frameworks. Practically, it offers actionable recommendations for educators and policymakers, such as developing teacher training programs focused on motivational strategies, improving resource allocation, and standardizing feedback mechanisms. These interventions could significantly enhance the quality of Islamic education and serve as a model for other educational systems.

This research underscores the transformative power of teacher participation in shaping motivated, confident, and purpose-driven learners. By fostering a holistic and values-driven approach to education, Islamic schools can not only improve academic outcomes but also contribute to students' emotional and moral development. The message is clear: motivation is not just a tool for academic success—it is the foundation for nurturing resilient, engaged, and morally grounded individuals. This revelation is both shocking and inspiring, calling for a paradigm shift in how we perceive and practice education in Islamic and broader contexts.

REFERENCES

[1] C. Cassidy, H. Marwick, C. Dwyer, and E. Lucas, "Creating a learning environment conducive to children's well-being through philosophy with children in a Scottish classroom," *Educ. 3-13*, vol. 52, no. 5, pp. 635–647, 2024, doi: 10.1080/03004279.2022.2125333.

[2] H. Kamal, M. Ritonga, and A. Mudinillah, "Fiqh Learning at Madrasah Ibtidaiyah: Enhancing Students' Academic Performance through a Collaborative Learning Model," *AL-ISHLAH J. Pendidik.*, vol. 16, no. 2, pp. 2863–2877, 2024, doi: 10.35445/alishlah.v16i2.5055.

[3] M. Uyun, Y. Bahriah, and F. Fitriani, "Interest and learning motivation with student participation," *Psikoislamedia J. Psikol.*, vol. 7, no. 2, pp. 119–133, 2022, doi: 10.22373/psikoislamedia.v7i2.13794.

[4] J. Reeve and S. H. Cheon, "Autonomy-supportive teaching: Its malleability, benefits, and potential to improve educational practice," *Educ. Psychol.*, vol. 56, no. 1, pp. 54–77, 2021, doi: 10.1080/00461520.2020.1862657.

[5] A. Salim, A. Lahmi, and A. Rasyid, "Kontribusi Kompetensi Profesionalisme Guru terhadap Peningkatan Motivasi Belajar Pendidikan Agama Islam," *Ruhama Islam. Educ. J.*, vol. 3, no. 2, pp. 1–14, 2020, doi: 10.31869/ruhama.v3i2.2219.

[6] S. E. Kassab, R. Rathan, D. C. M. Taylor, and H. Hamdy, "The impact of the educational environment on student engagement and academic performance in health professions education," *BMC Med. Educ.*, vol. 24, no. 1, 2024, doi: 10.1186/s12909-024-06270-9.

[7] L. Mandouit and J. Hattie, "Revisiting 'The Power of Feedback' from the perspective of the learner," *Learn. Instr.*, vol. 84, p. 101718, 2023, doi: https://doi.org/10.1016/j.learninstruc.2022.101718.

[8] I. Patra, A. Alazemi, D. Al-Jamal, and A. Gheisari, "The effectiveness of teachers' written and verbal corrective feedback (CF) during formative assessment (FA) on male language learners' academic anxiety (AA), academic performance (AP), and attitude toward learning (ATL)," *Lang. Test. Asia*, vol. 12, no. 1, 2022, doi: 10.1186/s40468-022-00169-2.

[9] A. Asmawati, M. Ritonga, and A. Lahmi, "the Relationship Between Madrasah and Teacher Learning Style With Arabic Learning Outcomes," *Linguist. J. Bhs. dan Sastra*, vol. 6, no. 2, p. 356, 2021, doi: 10.31604/linguistik.v6i2.356-367.

[10] H. Hotmaida, M. Ritonga, and M. Mursal, "Pembelajaran Pendidikan Agama Islam Di Sekolah Dasar: Analisis Terhadap Kompetensi Guru, Strategi Dan Kualitas Hasil," *Ruhama Islam. Educ. J.*, vol. 3, no. 2, pp. 29–42, 2020, doi: 10.31869/ruhama.v3i2.2221.

[11] I. Munawaroh, M. Ali, and Asep Herry Hernawan, "The Role of Teachers and Islamic Activities In Developing The Character of Students," *Edukasi Islam. …*, vol. 12, no. 3, pp. 2107–2120, 2023, doi: 10.30868/ei.v12i03.4468.

[12] S. S. Ihwani, M. T. Ajmain, Jima'ain, and Z. N. Rashed, "The Role Of Teachers In Embedding Islamic Values And Ethics In Education: A Literature Review," *AL-WIJDĀN J. Islam. Educ. Stud.*, vol. 8, no. 3, pp. 335–342, 2023, doi: 10.58788/alwijdn.v8i3.2466.

[13] H. L. Tosi, "The Academy of Management Review," *Acad. Manag. Rev.*, vol. 16, no. 2, pp. 480–483, Mar. 2025, doi: 10.2307/258875.

[14] Y. H. Jeong, L. C. Healy, and D. McEwan, "The application of Goal Setting Theory to goal setting interventions in sport: a systematic review," *Int. Rev. Sport Exerc. Psychol.*, vol. 16, no. 1, pp. 474–499, 2023, doi: 10.1080/1750984X.2021.1901298.

[15] M. Manninen, R. Dishman, Y. Hwang, E. Magrum, Y. Deng, and S. Yli-Piipari, "Self-determination theory based instructional interventions and motivational regulations in organized physical activity: A systematic review and multivariate meta-analysis," *Psychol. Sport Exerc.*, vol. 62, p. 102248, 2022, doi: https://doi.org/10.1016/j.psychsport.2022.102248.

[16] T. Luo and A. Derakhshan, "Examining the role of classroom climate and teacher-student relationships in EFL students' perceived learning outcomes: A self-determination theory perspective," *Learn. Motiv.*, vol. 88, p. 102062, 2024, doi: https://doi.org/10.1016/j.lmot.2024.102062.

[17] S. Č. Konrad, J. L. Vodopivec, and T. Štemberger, "Classroom Climate and Student–Teacher Relationship: A Study Among Students and Teachers in Slovenia," *Eur. J. Educ. Res.*, vol. 13, no. 3, pp. 1411–1420, 2024, doi: 10.12973/eu-jer.13.3.1411.

[18] E. L. Deci and R. M. Ryan, *Intrinsic Motivation and Self-Determination in Human Behavior*. New York: Springer, 1985. doi: 10.1002/9781119547143.ch61.

[19] A. Bandura, "Self-Efficacy: The Exercise of Control," 1977.

[20] Yulisna *et al.*, "Online Learning During the Covid-19 Pandemic Period: Studies on the Social Presence and Affective and Cognitive Engagement of Students," *Int. J. Early Child. Spec. Educ.*, vol. 14, no. 1, pp. 479–486, 2022, doi: 10.9756/int-jecse/v14i1.221058.

[21] C. A. Brenner, "Self-regulated learning, self-determination theory and teacher candidates' development of competency-based teaching practices," *Smart Learn. Environ.*, vol. 9, no. 1, p. 3, 2022, doi: 10.1186/s40561-021-00184-5.

Research Article

The Influence of the Discovery Learning and Numbered Heads Together Models on Student Learning Outcomes.

Febriani,[1]Sasmi Nelwati,[2]Ilpi Zukdi,[3] Hidayati Hidayati,[4] Rivdya Eliza,[5]
[1,2,3,4,5] Universitas Islam Negeri Imam Bonjol Padang

ABSTRAK: Penelitian ini bertujuan untuk mengkaji pengaruh model pembelajaran *discovery learning* dan *numbered heads together* terhadap hasil belajar peserta didik pada mata pelajaran Pendidikan Agama Islam dan Budi Pekerti kelas XI di SMK Negeri 2 Padang. Jenis penelitian yang digunakan adalah eksperimen-semu (*Quasi eksperimen*) dengan desain Randomized Control Group Only Design. Populasi dalam penelitian ini adalah seluruh peserta didik kelas XI SMK Negeri 2 Padang 2024/2025, untuk mendapatkan kelas sampel maka digunakan teknik pengambilan sampel secara acak (*random sampling*). Kelas eksperimen I menggunakan model *discovery learning*, kelas eksperimen II menggunakan model *numbered heads together* dan kelas kontrol menggunakan pembelajaran konvensional. Data hasil belajar diperoleh melalui instrumen tes dan dianalisis menggunakan uji t. Hasil penelitian menunjukkan bahwa rata-rata nilai post-test kelas eksperimen I adalah 85,88, kelas eksperimen II 80,47, dan kelas kontrol 74,47. Uji hipotesis dengan uji t menunjukkan bahwa hasil belajar peserta didik yang menggunakan model *discovery learning* dan *numbered heads together* tinggi secara signifikan dibandingkan dengan kelas kontrol. Selain itu, terdapat perbedaan signifikan antara hasil belajar peserta didik yang menggunakan model pembelajaran model *discovery learning* dan *numbered heads together*.

ABSTRACT: This study aimed to examine the effect of the Discovery Learning (DL) and Numbered Heads Together (NHT) learning models on student learning outcomes in the subject of Islamic Religious Education and Character for grade XI at SMK Negeri 2 Padang. The research employed a quasi-experimental method with a Randomized Control Group Only Design. The population consisted of all grade XI students at SMK Negeri 2 Padang for the 2024/2025 academic year, with sample classes selected using random sampling technique. Experimental Class I was taught using the DL model, Experimental Class II using the NHT model, and the Control Class using conventional learning. Learning outcomes data were collected through a test instrument and analyzed using a t-test. The results showed that the average post-test scores for Experimental Class I, Experimental Class II, and the Control Class were 85.88, 80.47, and 74.47, respectively. Hypothesis testing with the t-test indicated that the learning outcomes of students taught using both the DL and NHT models were significantly higher than those in the control class. Furthermore, a significant difference was found between the learning outcomes of students taught using the DL model and those taught using the NHT model.
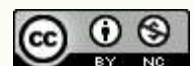
INTRODUCTION

Islamic Religious Education (PAI) is a process of imparting Islamic knowledge and values to students through teaching, habituation, and the development of their potential. Its objective is to achieve balance and perfection in life, both in this world and in the hereafter [1]. In the 2013 Curriculum, the term Islamic Religious Education (PAI) is supplemented with "and Character" (Budi Pekerti), thus becoming Islamic Religious Education and Character (PAI dan BP). This refers to an education that not only provides knowledge but also shapes students' attitudes, personalities, and skills in consciously and deliberately practicing the values of Islamic teachings. The goal is to achieve salvation in this world and the hereafter through subjects taught at every educational unit [2]

Instruction is a term closely and inseparably linked to the educational process. It encompasses activities designed to create conditions or provide services that facilitate student learning [3]. The instruction of PAI and BP within national education holds significant urgency in realizing one of the national education objectives outlined in Law Number 20 of 2003 concerning the National Education System, Article 3: to develop students' inherent potentials so they may become human beings who have faith and piety towards God Almighty and possess noble character [4]. Therefore, to achieve these educational goals, it is crucial for educators to understand how students learn during the educational process. Ideally, an educator should master various competencies, one of which is professional competence. Professional competence refers to the ability to master learning materials broadly and deeply, including the professionalism of an educator in developing teaching methods, learning models, instructional strategies, and basic teaching skills to ensure effective instruction and optimal learning outcomes [5].

Learning outcomes are critically important in education and can be viewed as a measure of student success in school education [6]. Learning outcomes are an educational assessment of student progress in all aspects learned at school, concerning knowledge, proficiencies, or skills expressed after evaluation [7]. Generally, student learning outcomes are influenced by two interrelated factors: internal and external factors. One significant external factor is the selection of learning models. Hence, educators need to plan and implement learning models that can enhance student participation and learning outcomes [8].

In practice, however, the learning models applied by educators have not been able to improve learning outcomes in the PAI and BP subject. This was evident from observations conducted on Friday, October 13, 2023, at SMK Negeri 2 Padang during the instructional process. Several key findings from the observation included: 1) Students were less active in learning. This was apparent during class discussions, where only a few students actively participated in presentations, arguments, and answering questions, while the majority appeared bored, lacked concentration, did not pay attention to the teacher's explanations, worked on tasks irrelevant to the material, or talked with their desk mates; 2) Teachers tended to dominate the classroom learning process; 3) Student learning outcomes remained relatively low, with average scores ranging between 60-70, despite the Minimum Completeness Criteria (KKTP) for PAI and BP being set at 75 (Observation, October 2023).

Based on the problems outlined above, educators need to select and apply learning models that encourage students to participate actively in the learning process. This is important so that students not only acquire knowledge but can also develop their competencies maximally, ultimately contributing to the achievement of optimal learning outcomes. Among the various learning models that can enhance student activity and engagement, and have the potential to improve PAI and BP learning outcomes, are the Discovery Learning model and the Numbered Heads Together (NHT) cooperative learning model.

Discovery Learning is a model designed to foster active learning, where students can discover and investigate material independently. This approach leads to more meaningful, lasting, and memorable learning outcomes [9]. According to Dimyati and Mudjiono, the use of the Discovery Learning model serves several purposes, including increasing active student participation in acquiring and processing information, preparing them to be lifelong learners, reducing dependence on the teacher as the sole source of information, and training students to explore their environment as a source of information [10].

Previous research also indicates that the implementation of the Discovery Learning model in PAI and BP instruction is effective in improving student learning outcomes and critical thinking skills. For instance, a study by Titin showed that the application of the Discovery Learning model could improve the PAI and BP learning outcomes of second-grade students at SDN No. 51 Dumbo Raya, with learning completeness increasing from 68% to 92% after two cycles of implementation [11]. Furthermore, research by Nikmatul Rohmawati at SMK Negeri 1 Ponorogo found that the application of the Discovery Learning model significantly improved student learning outcomes, particularly when combined with a high level of learning activity [12].

Various previous studies reveal that the Discovery Learning model holds great potential for enhancing the quality of PAI and BP instruction. In the midst of the demands of the digital era, which emphasize the importance of critical thinking skills and learning independence, instructional approaches that stimulate student activity and exploration are needed. It is within this context that this research is conducted to examine more deeply the application of the Discovery Learning model in PAI and BP instruction, with a specific focus on the achievement of students' cognitive learning outcomes.

In addition to the Discovery Learning model, another model that can be used to activate students in achieving their learning outcomes is the Numbered Heads Together (NHT) cooperative learning model. The NHT model begins with a numbering stage, where the teacher divides students into groups and assigns a number to each individual within the group. Subsequently, the teacher poses questions, and each group consolidates their ideas through discussion in "Heads Together" to formulate an answer. Then, the teacher calls upon students with the same number from each group to present their answers, and the most appropriate answer is discussed. A distinctive feature of the NHT model is that the teacher randomly selects a student to represent their group without prior notice. This ensures the active involvement of all students [13]. Through the application of the NHT model, it is expected that students will become more active during the learning process, find it easier to understand the material taught, develop a greater sense of responsibility, and ultimately achieve better learning outcomes.

Based on these conditions, this research was conducted to examine the influence of two learning models, namely Discovery Learning and Numbered Heads Together (NHT), on student learning outcomes. These two models were selected because their approaches encourage student activity and engagement in the learning process. Through this research, it is hoped that a clearer picture of the effectiveness of each model in improving learning outcomes will be obtained. The findings of this study represent an important contribution to efforts aimed at enhancing instructional quality, particularly within the context of Islamic Religious Education.

.

METHOD

This study falls under the category of quantitative research utilizing a quasi-experimental method. The research design employed was a randomized group only design. The study was conducted across three classes: two experimental classes and one control class. The treatment applied in Experimental Class I was the Discovery Learning model, in Experimental Class II the Numbered Heads Together (NHT) model was used, while the control class was taught using the conventional learning model.

The population of this research consisted of all Grade XI students in the odd semester of the 2024/2025 Academic Year at SMK Negeri 2 Padang. The study sample was selected using random sampling technique [14]. Data in this study were obtained using a test instrument in the form of a learning outcomes test for the Islamic Religious Education and Character (PAI dan BP) subject. The same test was administered to all three sample groups as a post-test, conducted at the end of the instructional topic based on the Learning Objective Flow (*Alur Tujuan Pembelajaran*). The test consisted of 25 multiple-choice items with options A through E. The data from this test were then analyzed quantitatively to determine the difference in the average improvement of student learning outcomes across Experimental Class I, Experimental Class II, and the control class.

In this study, before conducting hypothesis testing on the collected data, assumption tests were performed as prerequisites for inferential statistical analysis. The assumption tests consisted of two types: the normality test and the homogeneity of variance test. The normality test aimed to demonstrate that the sample data came from a normally distributed population. The normality test was conducted using the Kolmogorov-Smirnov test with the help of the SPSS program. The decision criterion was based on the significance value (Sig.): if Sig. > α (0.05), the data were considered normally distributed; conversely, if Sig. < α (0.05), the data were not normally distributed. The homogeneity of variance test was performed to determine whether the three sample groups came from populations with the same variance (homogeneous) or not. This test was also conducted using SPSS. The decision criterion was that if the significance level or probability was greater than 0.05, the sample classes could be considered homogeneous [15].

The research hypotheses were formulated to examine the effect of the Discovery Learning model and the Numbered Heads Together cooperative learning model on student learning outcomes:

1. The learning outcomes of students taught using the Discovery Learning model are higher than those of students taught using conventional learning in the PAI dan BP subject for Grade XI at SMK Negeri 2 Padang.
2. The learning outcomes of students taught using the Numbered Heads Together model are higher than those of students taught using conventional learning in the PAI dan BP subject for Grade XI at SMK Negeri 2 Padang.
3. There is a difference in the learning outcomes of students taught using the Discovery Learning model and the Numbered Heads Together model in the PAI dan BP subject for Grade XI at SMK Negeri 2 Padang.

RESULTS

The data in this study consist of student learning outcomes in the subject of Islamic Religious Education (PAI) and Moral Character (BP) from three groups: Experimental Class I, which employed the Discovery Learning model; Experimental Class II, which used the Cooperative Learning model of the Numbered Heads Together (NHT) type; and the Control Class, which implemented conventional teaching methods. The PAI and BP learning outcomes were obtained through a final test (post-test) administered to students in all three sample classes. The test comprised 25 multiple-choice items with five response options each, covering the topic "Branches of Faith: Fulfilling Promises, Expressing Gratitude for

Blessings, Guarding One's Speech, and Concealing Others' Faults." Based on the test scores, the mean, standard deviation, highest score, and lowest score were calculated. The results of these calculations are presented in Table 1 below.

Table 1. Descriptive Statistics of Post-Test Learning Outcomes

Class	N	x_max	x_min	Mean	Std. Deviation
Experimental I	34	100	68	85.88	8.48
Experimental II	34	100	64	80.47	9.48
Control	34	96	52	74.47	10.23

As shown in Table 1, the PAI and BP learning outcomes in Experimental Class I were higher than those in the Control Class. Similarly, the outcomes in Experimental Class II also exceeded those of the Control Class, and Experimental Class I outperformed Experimental Class II. Specifically, Experimental Class I achieved a mean score of 85.88, with a maximum of 100 and a minimum of 68. Experimental Class II recorded a mean of 80.47, with a maximum of 100 and a minimum of 64. Meanwhile, the Control Class obtained a mean of 74.47, with a maximum of 96 and a minimum of 52.

Prior to conducting hypothesis testing on the collected data, the researcher first performed assumption tests as prerequisites for selecting the appropriate inferential statistical method. These assumption tests included normality and homogeneity of variance tests. The purpose of these tests was to determine whether the selected sample distributions originated from a normally distributed population. In other words, these tests were conducted to decide whether parametric or non-parametric statistical tests should be used for hypothesis testing. If the data were normally distributed, parametric statistics would be applied; otherwise, non-parametric methods would be employed. The normality test was conducted using the Kolmogorov–Smirnov test with the assistance of SPSS software version 22. The results of the normality test for PAI and BP learning outcomes are presented in Table 2 below.

Table 2. Normality Test of PAI and BP Learning Outcomes (Experimental Class I, Experimental Class II, and Control Class)

Variable	Class	Kolmogorov–Smirnov Statistic	df	Sig.
PAI and BP Outcomes	Experimental I	0.128	34	0.173
	Experimental II	0.145	34	0.067
	Control	0.117	34	0.2

As indicated in Table 2, the significance values for Experimental Class I, Experimental Class II, and the Control Class were 0.173, 0.067, and 0.200, respectively. All these values exceed the predetermined alpha level of α = 0.05. Therefore, it can be concluded that the learning outcome scores for PAI and BP in all three classes originate from a normally distributed population. The homogeneity of variances was assessed using Levene's Test, with results shown in Table 3.

Table 3. Homogeneity Test of PAI and BP Learning Outcomes (Experimental Class I, Experimental Class II, and Control Class)

Basis	Levene Statistic	df1	df2	Sig.
Based on Mean	0.509	2	99	0.603
Based on Median	0.567	2	99	0.569
Based on Median and adjusted df	0.567	2	96.837	0.569
Based on Trimmed Mean	0.515	2	99	0.599

Table 3 shows that the significance value based on the mean for the post-test learning outcomes across the three classes is 0.603. Since 0.603 > 0.05, it can be concluded that the variances of the learning outcomes among the three sample classes are homogeneous. Having confirmed that the data are both normally distributed and homogenous, the next step was to conduct hypothesis testing using a t-test (more precisely, a one-way ANOVA followed by post-hoc comparisons, given the three-group design). This hypothesis test was performed to determine whether the research hypotheses should be accepted or rejected.

First Hypothesis Test

The statistical hypotheses to be tested are: $H_0 : \mu_1 \leq \mu_3$ and $H_1 : \mu_1 > \mu_3$, where μ_1 represents the mean learning outcomes of students in Experimental Class I (Discovery Learning), and μ_3 denotes the mean learning outcomes of students in the Control Class (Conventional Instruction). The results of the independent samples t-test are presented in Table 4 below.

Table 4. Results of the First Hypothesis Test

Class	N	Mean	$t_{Calculated}$	$t_{critical}$	Decision
Eksperimental I	34	85,88	5,53	1,66	H1 diterima
Control	34	74,47			

Table 4 shows that the calculated t-value is 5.53, while the critical t-value at degrees of freedom (df) = 66 and a 95% confidence level (α = 0.05) is 1.66. Since $t_{calculated} > t_{critical}$ (5.53 > 1.66), the null hypothesis (H_0) is rejected, and the alternative hypothesis (H_1) is accepted. Therefore, it can be concluded that the learning outcomes of students taught using the Discovery Learning model are significantly higher than those taught using conventional instruction in the Islamic Religious Education and Moral Character (PAI and BP) subject for Grade XI students at SMK Negeri 2 Padang.

The findings confirm that students exposed to the Discovery Learning model achieved higher learning outcomes compared to those taught through conventional methods. This result is attributable to the active involvement of students in the learning process, which aligns with Piaget's constructivist theory. According to this theory, effective learning occurs when learners actively construct knowledge through direct experience, social interaction, and problem-solving [13].

Discovery Learning is an instructional model that emphasizes students' independent discovery of conceptual knowledge. Jerome Bruner argued that discovery-based learning enables students to construct their own understanding in a more active and engaged manner. This process fosters deeper comprehension and enhances long-term retention of learned material [16]. Bruner's theory thus suggests that Discovery Learning not only strengthens conceptual understanding but also stimulates critical and creative thinking, as students are encouraged to seek solutions to encountered problems [17].

Hosnan [9] further defines Discovery Learning as a model that develops active learning strategies by enabling students to independently investigate and discover knowledge. The resulting understanding is more enduring and less prone to forgetting. In this model, learners are given opportunities—either independently or with minimal teacher guidance—to construct new concepts, leading to deeper and more meaningful learning. This contrasts sharply with conventional instruction, which is typically teacher-centered and passive, where students primarily receive information without active engagement [18].

This study also reveals that students actively involved in the learning process demonstrate higher motivation and a greater sense of responsibility for their own learning. These factors collectively contribute to more optimal learning outcomes compared to conventional methods, which tend to be passive and offer limited opportunities for exploration or knowledge construction. These findings are consistent with Rizkyna et al [19], whose study titled "The Effect of the Discovery Learning Model on PAI and BP Learning Outcomes of Grade VII Students at SMP Negeri 13 Malang" similarly concluded that Discovery Learning significantly improves student achievement compared to conventional teaching.

Supporting evidence also comes from Aliasmin, who found that the implementation of Discovery Learning enhances PAI learning outcomes [20]. Improved achievement, in turn, fosters sustained student curiosity and a desire for continuous learning. This model emphasizes experiential learning and the generation of new ideas, naturally promoting active student participation. Furthermore, Zaenal et al, demonstrated that Discovery Learning significantly improves students' understanding of PAI and BP content [21]. Through active engagement in concept discovery and self-constructed understanding, students more readily grasp the moral and religious messages embedded in the lessons. The model cultivates critical thinking by training students not only to receive information passively but also to analyze, synthesize, and relate it to their daily lives, thereby deepening their comprehension.

Second Hypothesis Test

The statistical hypotheses to be tested are: $H_0 : \mu_2 \leq \mu_3$ and $H_1 : \mu_2 > \mu_3$, where μ_2 represents the mean learning outcomes of students in Experimental Class II (Numbered Heads Together, NHT), and μ_3 denotes the mean learning outcomes of students in the Control Class (Conventional Instruction). The results of the t-test are presented in Table 5 below.

Table 5. Results of the Second Hypothesis Test

Class	N	Mean	$t_{Calculated}$	$t_{Critical}$	Decision
Eksperimental II	34	80,47	2,77	1,66	H_1 Accepted
Kontrol	34	74,47			

Table 5 indicates that the calculated t-value is 2.77, while the critical t-value at df = 66 and α = 0.05 is 1.66. Since $t_{calculated} > t_{critical}$ (2.77 > 1.66), H_0 is rejected and H_1 is accepted. Thus, it can be concluded that the learning outcomes of students taught using the Numbered Heads Together (NHT) cooperative learning model are significantly higher than those taught using conventional instruction in PAI and BP for Grade XI students at SMK Negeri 2 Padang.

These results confirm that NHT yields superior learning outcomes compared to conventional methods. This is because the NHT model actively engages students in group discussions and mutual support in mastering the material. According to Trianto (as cited in Zativalen & Humairah, NHT is a structural cooperative learning model designed to shape specific interaction patterns among students, with the explicit goal of enhancing academic mastery through collaborative analysis of lesson content and deepening conceptual understanding [22].

Istarani explains that the NHT cooperative model involves presenting material through small groups, where students collectively construct shared understanding in response to teacher-posed questions. Each group member is assigned a number, and a randomly selected student (based on number) is held accountable for answering on behalf of the group. This structure ensures that all students remain engaged, as any member may be called upon to respond [23]. Consequently, NHT fosters peer communication, which plays a crucial role in deepening comprehension. Every student is given the opportunity to contribute, reducing passivity and promoting active cognitive processing [24].

This model cultivates individual accountability within group settings, as each member is responsible for ensuring that all teammates understand the material. It also develops students' communication skills, cooperation, and ability to articulate ideas clearly [25]. Students taught using NHT demonstrate greater enthusiasm, quicker comprehension, and improved retention of lesson content. Moreover, the model provides equitable opportunities for all students to speak and contribute, thereby reducing anxiety and boosting self-confidence in expressing opinions—factors that collectively enhance overall learning achievement [26].

These findings align with Ahmad and Mardiyah (2019), whose study "The Impact of Numbered Heads Together on Learning Outcomes in Islamic Education" found that students taught with NHT

achieved significantly better PAI outcomes than those taught conventionally. In NHT, active group discussion facilitates deeper conceptual understanding, whereas conventional lecture-based methods often render students passive recipients of information, limiting their engagement in meaningful cognitive processing [18].

This conclusion is further supported by Rohmanurmeta [27], who argued that NHT cooperative learning enables students to internalize Islamic religious values through discussion and collaboration, thereby reinforcing conceptual mastery. Additionally, Agustina and Mu'ammar (2018) observed that the *Implementation of The Nht Model in PAI Instruction for Grade VII A at Smp Muhammadiyah 7 Cerme*, Gresik, was highly effective, as evidenced by high student enthusiasm, active participation, and a conducive, dynamic classroom atmosphere.

Third Hypothesis Test

The statistical hypotheses to be tested are: $H_0 : \mu_1 = \mu_2$ and $H_1 : \mu_1 \neq \mu_2$ where μ_1 represents the mean learning outcomes of students in Experimental Class I (Discovery Learning), and μ_2 denotes the mean learning outcomes of students in Experimental Class II (Numbered Heads Together, NHT). The results of the independent samples t-test are presented in Table 6 below.

Table 6. Results of the Third Hypothesis Test

Kelas	N	Mean	$t_{Calculated}$	$t_{Critical}$	Decision
Eksperimental I	34	85,88	2,746	1,997	H_1 diterima
Eksperimental II	34	80,47			

As shown in Table 6, the calculated t-value is 2.746, while the critical t-value at α = 0.025 (two-tailed test) and a 95% confidence level is 1,997. According to the decision rule—reject H_0 if $t_{calculated} > t_{\left(\frac{\alpha}{2}\right)}$ or $t_{calculated} < -t_{\left(\frac{\alpha}{2}\right)}$ —the calculated t-value falls within the rejection region. Therefore, H_0 is rejected and H_1 is accepted. It can thus be concluded that there is a statistically significant difference in learning outcomes between students taught using the Discovery Learning model and those taught using the Numbered Heads Together (NHT) model in the Islamic Religious Education and Moral Character (PAI and BP) subject for Grade XI students at SMK Negeri 2 Padang.

This difference in learning outcomes can be attributed to the distinct pedagogical processes inherent in each instructional model. In Discovery Learning, students are actively engaged in the exploration and independent construction of knowledge. This model encourages critical and creative thinking through challenging activities such as experimentation, inquiry, and problem-solving. Such processes enable learners to build personal understanding based on direct experience, thereby enhancing both memory retention and depth of comprehension. Grounded in constructivist theory, Discovery Learning posits that knowledge discovered autonomously is more readily understood and retained because learners connect it to their real-life experiences, facilitating deeper internalization of information.

In contrast, the NHT cooperative learning model emphasizes collaborative problem-solving within small groups. In this approach, students work together to answer questions or solve tasks, with each group member assigned a number; one student is then randomly selected to present the group's answer to the class. While this structure promotes social interaction and develops communication skills, individual engagement in deep conceptual understanding may vary. Some students may adopt passive roles or rely heavily on more dominant peers, limiting their personal cognitive processing. Although NHT effectively fosters social skills and teamwork, its collaborative nature does not always provide sufficient space for individual learners to explore and internalize content at a deep, analytical level. Consequently, while NHT offers valuable interpersonal benefits, Discovery Learning proves superior

in generating deeper understanding and higher learning outcomes due to its emphasis on independent exploration, critical analysis, and self-directed knowledge construction [28].

These findings align with the study by Amalia et al, titled "A Comparison of Discovery Learning and Numbered Heads Together Models Using Word Square Media on Students' Cognitive Learning Outcomes." Their analysis revealed that the average normalized gain (N-Gain) was significantly higher in the Discovery Learning group than in the NHT group, confirming a meaningful difference in learning achievement [29]. This outcome is attributed to the fact that Discovery Learning enables students to learn directly through hands-on experience rather than relying solely on teacher-delivered content.

Similarly, Sari et al, found that the Discovery Learning model encourages students to learn independently and apply existing knowledge to novel contexts. This active engagement makes the learning process more effective, as students personally construct concepts through inquiry and discovery [30]. As a result, learned concepts are more easily recalled and retained over time. Furthermore, learners are prompted to connect prior knowledge with new situations, strengthening conceptual clarity and coherence.

The advantages of Discovery Learning identified in this study are further supported by Nonalisa et al, who reported that implementing Discovery Learning enhances students' interest, enthusiasm, concentration, and classroom participation. Additionally, this approach leads to measurable improvements in learning outcomes, including increased class average scores and higher percentages of both individual and class-wide learning mastery [31].

In summary, the findings demonstrate a significant difference in learning outcomes between students exposed to Discovery Learning and those taught via the NHT cooperative model. Experimental Class I (Discovery Learning) achieved higher mean scores than Experimental Class II (NHT). This superiority stems from Discovery Learning's capacity to foster active exploration, independent discovery, and self-constructed understanding, which collectively enhance comprehension and retention. Although Experimental Class II (NHT) yielded lower scores than Discovery Learning, it still outperformed the Control Class (conventional instruction), confirming NHT's effectiveness in improving learning outcomes through structured peer interaction. Nevertheless, the depth of individual conceptual understanding in NHT remains comparatively limited relative to the autonomous, inquiry-driven process characteristic of Discovery Learning

CONCLUSION

Based on the findings and discussion presented above, the following conclusions can be drawn: *First*, students taught using the Discovery Learning model achieved significantly higher learning outcomes than those taught through conventional instruction, as evidenced by the mean scores of 85.88 in Experimental Class I and 74.47 in the Control Class, with a hypothesis test yielding a calculated t-value of 5.53 compared to a critical t-value of 1.66.

Second, students instructed using the Numbered Heads Together (NHT) cooperative learning model also demonstrated significantly higher learning outcomes than those in the conventional group, with mean scores of 80.47 in Experimental Class II and 74.47 in the Control Class, and a calculated t-value of 2.77 against a critical t-value of 1.66.

Third, there is a statistically significant difference in learning outcomes between students taught using the Discovery Learning model and those taught using the NHT cooperative model, as reflected in the mean scores of 85.88 (Experimental Class I) and 80.47 (Experimental Class II), with a calculated t-value of 2.746 exceeding the critical t-value of 1.997 at α = 0.05 (two-tailed test).

DAFTAR PUSTAKA

[1] Ramayulis, *Filsafat Pendidikan Islam: Analisis Filosofis Sistem Pendidikan Islam*. Jakarta: Kalam Mulia.

[2] Fahrudin, H. Asari, and S. Halimah, *Implementasi Kurikulum 2013 Pendidikan Agama Islam Dan Budi Pekerti Dalam Menanamkan Akhlakul Karimah Siswa*, vol. 1, no. 4. Jurnal: Edu Riligia, 2017.

[3] I. Zukdi, *Pengembangan Model Pembelajaran Al-Islam Kemuhamadiyahan*. Cv. Azka Pustaka.

[4] A. Sumarni, B. M. Yunus, and Hanafiah, "Manajemen Pembelajaran PAI melalui Metode Problem Based Learning untuk Meningkatkan Prestasi Belajar (di SMP Karya Pembangunan Ciparay Bandung)," *Tanzhimuna*, vol. 2, no. 1, pp. 104–118, 2022.

[5] S. Nelwati, "Penggunaan Metode Diskusi Tipe Buzz Group Dalam Pembelajaran Pendidikan Agama Islam di SMPN 1 Gunung Talang Kabupaten Solok," *Murabby J. Pendidik. Islam*, vol. 1, no. 1, pp. 95–106, 2018, doi: 10.15548/mrb.v1i1.301.

[6] Dimyati and Moedjiono, *Belajar Dan Pembelajaran*. Pt. Rineka Cipta.

[7] S. Helma, H., and R. Fitri, "Penerapan Model The Firing Line Pada Pembelajaran Matematika Siswa Kelas Xi Ips Sma Negeri 1 Batipuh," *J. Pendidik. Mat.*, vol. 3, no. 1.

[8] H. T. Siregar, "Faktor-Faktor Yang Mempengaruhi Hasil Belajar Dalam Pembelajaran Pai," *J. Ilmu Tarb. Dan Kegur.*, vol. 2, no. 2.

[9] M. Hosnan, *Pendekatan Saintifik Dan Kontekstual Dalam Pembelajaranabad 21; Kunci Sukses Implementasi Kurikulum 2013*. Ghalia Idonesia.

[10] T. Anggreasi, *Efektifitas Pembelajaran (Pai) Dengan Model Discovery Learning Dalam Meningkatkan Motivasi Dan Hasil Belajar Soiswa Di Smp Negeri 1 Lawang Wetan*. Tesis Uin Raden Fatah.

[11] Titin, "Penerapan Model Discovery Learning Dalam Meningkatkan Hasil Belajar Pai Peserta Didik," *Al-Muhtarif J. Pendidik. Agama Islam*, vol. 2, no. 1.

[12] N. Rohmawati, *Pengaruh model Discovery Learning dan Keaktifan Belajar terhadap Hasil Belajar siswa Pada Mata Pelajaran PAI Kelas XII MM di Sekolah Menengah Kejuruan Negeri 1 Ponorogo Tahun Ajaran 2019/2020*. Iain Ponorogo, 2020.

[13] S. Khasinah, "Discovery Learning: Definisi, Sintaksis, Keunggulan Dan Kelemahan," *J. Mudarrisuna Media Kaji. Pendidik. Agama Islam*, vol. 11, no. 3.

[14] Sugiono, *Metode Penelitian Kuantitatif*. Alfabeta.

[15] A. Quraisy, "Normalitas Data Menggunakan Uji Kolmogorov-Smirnov dan Saphiro-Wilk," *J-HEST J. Heal. Educ. Econ. Sci. Technol.*, vol. 3, no. 1, pp. 7–11, 2022, doi: 10.36339/jhest.v3i1.42.

[16] W. Y. Kurniawan, "Implementasi Teori Belajar Konstruktivistik Jerome Bruner dalam Pembelajaran Pendidikan Agama Islam di SMP Negeri 9 Yogyakarta," *Islamika*, vol. 3, no. 1, pp. 21–37, 2021, doi: 10.36088/islamika.v3i1.917.

[17] A. Haerullah and S. Hasan, *Model & Pendekatan Pembelajaran Inovatif (Teori Dan Aplikasi*. Lintas Nalar.

[18] N. Wahyuni and F. Fitrawati, "Teachers' Perceptions Of Teacher-Centered Learning (Tcl) In Learning English At Senior High Schools In Agam Regency," *J. English Lang. Teach.*, vol. 13, no. 1.

[19] S. S. Rizkyna, I. R. Sulistiani, and F. Mustafida, "Pengaruh Model Discovery Learning Terhadap Hasil Belajar Pai Dan Budi Pekerti Siswa Kelas Viii Di Smpn."

[20] Aliasmin, "Penggunaan Metode Discovery Learning Pada Pembelajaran PAI Untuk Meningkatkan Hasil Belajar Siswa Kelas VII SMP Negeri 10 Seluma," *GHAITSA Islam. Educ. J.*, vol. 1, no. 1, p. 42, 2020, [Online]. Available: https://siducat.org/index.php/ghaitsa/article/view/43/30

[21] S. A. Zaenal, Erhamwilda, and Khambali, "Meta Analisis Pengaruh Model Discovery Learning terhadap Hasil Belajar Siswa pada Mata Pelajaran PAI," *J. Ris. Pendidik. Agama Islam*, vol. 1, no. 1, pp. 43–50, 2021, doi: 10.29313/jrpai.v1i1.158.

[22] O. Zativalen and H. Humairah, "Implementasi Metode Number Head Together (Nht) Pada Pembelajaran Tematik," *TANGGAP J. Ris. dan Inov. Pendidik. Dasar*, vol. 2, no. 1, pp. 74–83, 2021, doi: 10.55933/tjripd.v2i1.274.

[23] Istarani, *Model Pembelajaran Medan:Media Persada*. Media Persada.

[24] N. C. P. Sari and B. Azmy, "Pengaruh Model Pembelajaran Kooperatif Tipe Nht Berbantuan Video Animasi Powtoon Terhadap Kemampuan Apresiasi Cerpen Kelas V Sekolah Dasar," *(Jurnal Inov. Pembelajaran dan Pendidikan)*, vol. 2, no. 1, pp. 61–67, 2024, [Online]. Available: https://indopediajurnal.my.id/index.php/jurnal/article/view/236%0Ahttps://indopediajurnal.my.id/index.php/jurnal/article/download/236/166

[25] H. Imam, Hikmawati, Kosim, and M. Taufik, "Pengaruh Model Pembelajaran Kooperatif Tipe Numbered Heads Together (NHT) Terhadap Hasil Belajar Siswa Kelas X SMAN 1 Sanggar Tahun Pelajaran 2021/2022," *Jurnal Pendidikan Fisika dan Teknologi*, vol. 8, no. SpecialIssue. pp. 58–66, 2022. doi: 10.29303/jpft.v8ispecialissue.3715.

[26] M. Asmoro, D. Setiawan, and E. Waluyo, "Model NHT Berbantu DAVI dalam Meningkatkan Hasil Belajar Siswa SD," *J. Penelit. Tindakan Kelas*, vol. 1, no. 2, pp. 114–123, 2023, doi: 10.61650/jptk.v1i2.151.

[27] F. M. Rohmanurmeta, "Model Pembelajaran Numbered Heads Together (NHT): Pengaruh Terhadap Hasil Belajar Tematik Siswa SD," *J. Pemikir. dan Pengemb. Sekol. Dasar*, vol. 8, no. 2, pp. 163–169, 2020, doi: 10.22219/jp2sd.v8i2.14086.

[28] E. Ramadhanti, A. Nurhasanah, and M. Taufik, "Implementation of the Discovery Learning Model-Based Critical Thinking Skills in Thematic Learning at SDIT Al-Khairiyah," *EduBasic J. J. Pendidik. Dasar*, vol. 5, no. 1, pp. 41–52, 2023, doi: 10.17509/ebj.v5i1.51441.

[29] S. Amalia, R. Imanda, and F. Fakhrah, "Perbandingan Model Pembelajaran Discovery Learning Dan Numbered Heads Together Melalui Media Word Square Terhadap Hasil Belajar Kognitif Peserta Didik Pada Sub Materi Stoikiometri," *KATALIS J. Penelit. Kim. dan Pendidik. Kim.*, vol. 4, no. 2, pp. 1–8, 2021, doi: 10.33059/katalis.v4i2.4371.

[30] J. Sari, A. Bahar, and D. Handayani, "Studi Komparasi Antara Model Pembelajaran Discovery Learning Dan Group Investigation Terhadap Hasil Belajar Kimia Siswa," *Alotrop*, vol. 1, no. 1. 2017. doi: 10.33369/atp.v1i1.2720.

[31] N. Nonalisa, D. Ilmi, S. Supriadi, and J. Jasmienti, "Perbandingan Hasil Belajar Paimenggunakan Model Pembelajaran Discovery Learning Dan Problem Solving Peserta Didik Kelas Vii Di Uptd Smp N 1 Kecamatan Suliki," *J. Pendidikan, Bhs. Dan Budaya*, vol. 1, no. 1.

Revisiting the Curriculum of Madrasah Nizhamiyah: Inspirations for Contemporary Islamic Education in Indonesiain.

Alhamuddin,[1] Ahmad Fanani, [2]
[1,] Universitas Islam Bandung , Indonesia
[2] Universiti Brunei Darussalam, Brunei Darussalam

Correspondence
Alhamuddin

Universitas Islam Bandung

alhamuddinpalembang@gmail.com

ABSTRAK: Penelitian ini menelusuri warisan intelektual Madrasah Nizhamiyyah dan pengaruhnya terhadap perkembangan pendidikan Islam di Indonesia, dengan fokus khusus pada kurikulumnya. Menggunakan pendekatan kualitatif dengan metode historis dan komparatif, penelitian ini mengkaji sumber primer dan sekunder−termasuk teks-teks sejarah, struktur kurikulum, serta filsafat pendidikan Madrasah Nizhamiyyah−dan membandingkannya dengan praktik pendidikan Islam kontemporer di Indonesia. Temuan menunjukkan bahwa Madrasah Nizhamiyyah memainkan peran sentral dalam mengintegrasikan ilmu-ilmu keagamaan dengan ilmu rasional dan pengetahuan umum, sehingga menciptakan model akademik holistik yang secara signifikan membentuk pemikiran pendidikan Islam. Kurikulumnya yang seimbang telah menginspirasi lembaga-lembaga pendidikan modern di Indonesia yang berupaya menyelaraskan disiplin ilmu agama dan ilmu sekuler. Namun demikian, masih terdapat kesenjangan yang persisten: banyak sekolah Islam masih menerapkan pemisahan kaku antara mata pelajaran agama dan sekuler, sehingga melemahkan visi integratif yang semula diusung oleh model Nizhamiyyah. Penelitian ini menyimpulkan bahwa warisan Nizhamiyyah memberikan wawasan berharga bagi reformasi pendidikan Islam di Indonesia. Pendekatan integratifnya dapat dijadikan kerangka kerja untuk mengembangkan sistem pendidikan Islam yang lebih seimbang, inklusif, dan kompetitif secara global. Oleh karena itu, direkomendasikan agar lembaga pendidikan di Indonesia mempertimbangkan penerapan kurikulum terintegrasi serupa guna membekali peserta didik dengan kompetensi modern yang relevan sekaligus mempertahankan identitas keislaman mereka..

ABSTRACT: This study explores the intellectual legacy of the Nizhamiyyah Madrasah and its influence on the development of Islamic education in Indonesia, with a focus on its curriculum. Using a qualitative approach with historical and comparative methods, the research examines primary and secondary sources−including historical texts, curricular structures, and educational philosophies of the Nizhamiyyah Madrasah−and compares them with contemporary Islamic education practices in Indonesia. Findings reveal that the Nizhamiyyah Madrasah played a pivotal role in integrating religious sciences with rational and general knowledge, establishing a holistic academic model that significantly shaped Islamic educational thought. Its balanced curriculum has inspired modern Indonesian institutions aiming to harmonize religious and secular disciplines. However, a persistent gap remains: many Islamic schools still maintain a rigid separation between religious and secular subjects, undermining the integrative vision originally advanced by the Nizhamiyyah model. The study concludes that the Nizhamiyyah's legacy offers valuable insights for reforming Islamic education in Indonesia. Its integrative approach can serve as a framework for developing a more balanced, inclusive, and globally competitive Islamic education system. It is therefore recommended that Indonesian educational institutions consider adopting a similarly integrated curriculum to equip students with relevant modern competencies while preserving their Islamic identit.

INTRODUCTION

Islamic education has a very significant role in shaping world civilization, both in religious, social and intellectual aspects. One of the most influential examples in the history of Islamic education is the Nizhomiah madrasa, founded by the Prime Minister of the Seljuk Dynasty, Nizam al-Mulk, in the 11th century in Baghdad [1] Madrasah Nizhamiyah was not only a center of Islamic education but also a pioneering institution in developing a structured and scientific educational system that integrated religious knowledge with rational sciences. Established in the 11th century under the patronage of Nizam al-Mulk, this madrasa played a significant role in institutionalizing education in the Muslim world. The curriculum combined traditional Islamic sciences such as *fiqh*, *tafsir*, and *hadith* with rational disciplines like philosophy, mathematics, astronomy, and medicine, reflecting a holistic educational vision [2], [3]. This integrative model later inspired many Islamic educational institutions globally, including in Indonesia, where similar approaches to curriculum blending have emerged in pesantren and Islamic universities [4].

The Nizhomiah Madrasah was not just an educational institution that imparted religious knowledge, but also a center of scientific development that brought together the intellectual traditions of the East and West. Through the teaching and research conducted at the madrasa, Muslim scientists educated there built an intellectual network that connected the Islamic world with the West. Some of the scientific works of scientists affiliated with the Nizhomiah madrasa were translated into Latin and became the main reference for Western scientists at that time [5]. Thus, the Nizhomiah madrasa played a role in connecting the East and the West in the context of the exchange of knowledge and thought. The educational model applied in this madrasa also contributed significantly to the development of a more systematic and structured Islamic education system [6].

The influence of the Nizhomiah madrasa is not only limited to the Islamic world at that time, but also extends to the present, including in the development of Islamic education in Indonesia. Since the beginning of the 20th century, Islamic education in Indonesia has been influenced by various Islamic education traditions from the Middle East, one of which is the education model adopted from the Nizhomiah madrasa [7]. This education system, which integrates religious and general sciences, has had a major impact on the development of the Islamic education curriculum in Indonesia [8]. In addition, the Nizhomiah madrasa also introduced a scientific approach that encouraged critical and rational thinking in understanding religious teachings, which is very relevant to be applied in Indonesian Islamic education today.

Madrasah Nizhamiyah, established in the 11th century by Nizam al-Mulk, played a pivotal role in shaping the intellectual tradition of Islamic education by integrating religious sciences with rational disciplines in a formalized curriculum. This institution attracted and produced prominent scholars across various fields. Among the most notable were Imam al-Ghazali, a leading figure in *theology* and *philosophy*; Abu Ishaq al-Shirazi, known for his contributions to *fiqh* and *usul al-fiqh*; al-Khatib al-Baghdadi, an authority in *hadith studies*; and al-Mubashshir ibn Fatik, who contributed to *logic* and *philosophy*) [2], [9]. The curriculum also covered *mathematics, astronomy, and medicine*, reflecting a holistic approach to knowledge that was advanced for its time. Such integration of religious and rational sciences helped establish a model that influenced Islamic educational institutions across the Muslim world, including in Southeast Asia [4], [10].

As an educational institution that prioritizes quality teaching and character building, Nizhomiah madrasa teaches the importance of a well-organized education management system. This more professional management of education is implemented through a strict selection of teachers and the curriculum taught. The teachers at Madrasah Nizhamiyah were not only renowned religious scholars but also experts in various fields of rational sciences, reflecting the institution's commitment to an integrative model of education. Among them was Imam al-Ghazali, a theologian and philosopher whose works bridged *religious ethics* and *metaphysics*; Abu Ishaq al-Shirazi, a master in *Islamic jurisprudence* and *legal theory*; al-Khatib al-Baghdadi, a specialist in *hadith methodology*; and al-Mubashshir ibn Fatik, who contributed to *philosophy*, *logic*, and *science*. These educators not only taught religious subjects but also facilitated the study of *mathematics*, *astronomy*, and *medicine*, allowing students to acquire a comprehensive education (Makdisi, 1981; Nakosteen, 1964; Ibn al-Nadim, 1970). The high quality of instruction and interdisciplinary approach adopted at Nizhamiyah contributed significantly to the formation of a generation of Muslim intellectuals who were proficient in both religious scholarship and scientific inquiry [2], [9], [10], [11].

In addition, the curriculum of Madrasah Nizhamiyah emphasized the importance of developing knowledge that could be applied to improve the social and economic conditions of the community. One of the notable initiatives was the inclusion of practical sciences—such as medicine, astronomy, and mathematics—alongside religious sciences, which allowed students to engage with real-world issues affecting society [2], [9]. Furthermore, scholars such as Imam al-Ghazali, who taught at the Nizhamiyah in Baghdad, emphasized in his works—particularly *Ihya Ulum al-Din*—the ethical responsibilities of scholars and rulers in ensuring justice, welfare, and economic equity within the community [12]. This ethical orientation is evident in the broader educational goals of the madrasa, which went beyond intellectual development to include the formation of moral integrity and social consciousness. Such values—morality, social justice, and care for the *ummah*—remain deeply relevant for Islamic education in Indonesia today, where challenges demand not only academic intelligence but also strong character and social responsibility.

For example, Islamic education in Indonesia currently faces the ongoing challenge of presenting a curriculum that successfully integrates religious knowledge with general knowledge. Education systems that overemphasize religious teachings often risk limiting students' intellectual growth in the fields of science and technology. Conversely, an excessive focus on general knowledge may lead to the erosion of religious values that are essential for shaping moral character and ethical behavior. This tension has been the subject of significant discourse among Islamic education scholars in Indonesia. According to Azra [4], the legacy of Islamic educational reform in the archipelago has long been shaped by the attempt to harmonize *tafaqquh fi al-din* (deep understanding of religion) with modern sciences through curriculum integration. Similarly, Boil [13] emphasizes that a holistic curriculum is essential in preparing students to face the challenges of globalization without losing their moral and religious identity. In this regard, the educational approach promoted by the Nizhamiyah madrasa—which offered a balanced integration of religious and rational sciences—remains highly relevant. This model can serve as a valuable reference for Islamic education in Indonesia today, aiming to produce graduates who are not only intellectually capable but also morally grounded and socially responsible

The relevance of Nizhomiah madrasa education to Islamic education in Indonesia is also reflected in its efforts to create intellectual networks that connect different cultures and scientific traditions The Nizhamiyah madrasa was not merely a local educational institution, but a pioneering model that facilitated the structured transmission of knowledge across the Islamic world, and indirectly influenced intellectual currents in the West. Founded in the 11th century under the patronage of Nizam al-Mulk, its institutional structure included standardized curricula, state-sponsored endowments (*waqf*), salaried professors, entrance qualifications for

students, and tiered levels of instruction–features that were unprecedented at the time [2]. According to George Makdisi, the Nizhamiyah system laid the groundwork for many academic practices that were later adopted by medieval European universities, including the *licentia docendi* (license to teach), collegial instruction, and structured faculties [2]. The presence of scholars from diverse regions–such as Khurasan, Nishapur, and the Levant–at Nizhamiyah institutions fostered an intellectual exchange that reached well beyond Baghdad. This system enabled the transmission of classical Greek knowledge (through Arabic translations and commentaries) and its reintroduction into Europe via centers such as Andalusia and Sicily [9], [14]. Therefore, the Nizhamiyah madrasa represents not only a reform in Islamic education but also a9 catalyst in the global circulation of knowledge. In the current context of Indonesian Islamic education, building global intellectual networks is crucial, given that Indonesia has the largest Muslim population in the world and has great potential in the development of science, especially in areas such as Islamic economics, education, and technology. By adopting a more global and integrated approach, Islamic education in Indonesia can strengthen its position in the international community and play an active role in the development of global science and technology.

In this regard, the Nizhamiyah madrasa championed the importance of intellectual openness, encouraging diversity of thought and interaction among various schools and traditions of knowledge. Although firmly rooted in the Islamic educational tradition, the madrasa's influence extended beyond the Muslim world–especially through its systematic academic model and transmission of scientific and philosophical texts–demonstrating the critical role of cross-cultural engagement in knowledge development [2], [14]. The novelty of this article lies in its effort to reinterpret the Nizhamiyah model not merely as a historical achievement, but as a living pedagogical framework that offers actionable insights for contemporary Islamic education in Indonesia. While existing scholarship has extensively examined the institutional history of madrasas, few have explored how the integrative and interdisciplinary spirit of Nizhamiyah can directly inform curriculum reform in modern Muslim contexts. Given the current challenges faced by Indonesia–ranging from fragmentation between religious and secular knowledge to the demand for globally competent Muslim scholars–revisiting the Nizhamiyah paradigm provides a timely and relevant contribution to the discourse. It encourages a shift from dualism to integration, from exclusivity to inclusivity, and from insularity to global connectivity in Islamic educational thought and practice.

METHOD

This research employed a qualitative approach to understand the influence of the intellectual heritage and curriculum of the Nizhamiyah Madrasah on Islamic education in Indonesia. The qualitative approach was chosen because it allows researchers to explore data in depth, providing a more nuanced understanding of the historical and contemporary contexts [15]. In particular, this research utilizes a combination of historical and descriptive-analytical methods. The historical method aims to trace the intellectual heritage of Madrasah Nizhamiyah by analyzing primary sources, such as classical books, historical documents, and related literature, which provide insights into the madrasa's curriculum and its intellectual contributions [16]. The descriptive-analytical method is used to connect this historical heritage with the current state of Islamic education in Indonesia, focusing on how the integration of religious and general knowledge promoted by Nizhamiyah can inform modern educational practices [17]. This dual methodological approach enables a comprehensive analysis that bridges the past and present, providing a solid foundation for understanding the ongoing relevance of the Nizhamiyah model.

Data collection was done through literature study, interviews, and observation. The literature study involved a review of primary texts and modern literature on the Nizhomiah Madrasah. Interviews were conducted with Islamic education experts and historians to obtain their views on the influence of the Nizhomiah Madrasah. Observations were made in Islamic educational institutions to see the application of values or concepts that may be rooted in the legacy of the Nizhomiah Madrasah. Data were analyzed using thematic analysis techniques. Data were coded to find the main themes, such as the intellectual values and curriculum of the Nizhomiah Madrasah and its influence on contemporary Islamic education. Triangulation was conducted by comparing data from literature studies, interviews and observations to ensure the validity of the findings.

RESULTS

This study aimed to explore the contribution of the Nizhomiah madrasah in creating a systematic and structured Islamic education and its relevance to Islamic education in Indonesia. The Nizhomiah madrasa, founded in the 11th century by Nizam al-Mulk in the Persian region, became one of the Islamic educational institutions famous for its ability to integrate religious and general sciences in its curriculum system.

Structured and Integrative Education System in Nizhomiah Madrasahs

The Nizhamiyah Madrasah was one of the first examples in the history of Islamic education to develop a well-organized education system that combined religious and general sciences. This integrated approach was groundbreaking, as it aimed to produce well-rounded scholars proficient in both religious and rational knowledge. The curriculum implemented at the Nizhamiyah madrasa included religious sciences such as fiqh, tafsir, hadith, and theology, alongside subjects like mathematics, astronomy, logic, and philosophy [2]. The madrasa's educational framework was highly structured, with a system of faculties and professors specializing in different disciplines, which reflected the integration of various fields of knowledge into a coherent curriculum [14]. This interdisciplinary approach was essential in fostering intellectual development and contributed to the madrasa's influence on the educational systems that followed.

The success of the Nizhamiyah madrasa in developing a structured educational system can be attributed to its innovative classroom management and teaching methods. In the 11th century, scholars at these madrasas adopted pedagogical practices that were ahead of their time, including interactive discussions and case studies that encouraged critical thinking. This approach was based on the method of dialectical reasoning and empirical observation, which made the learning process dynamic and engaging [16]. Students were not only taught from religious texts but also from scientific and philosophical works, which helped them understand the world in a more comprehensive way. These methods facilitated the development of scholars who were capable of producing groundbreaking ideas in both the Islamic intellectual tradition and Western scholarship.

Therefore, the Nizhamiyah madrasa was not only a center of religious education but also a model of an educational institution that fostered interdisciplinary learning. The madrasa's contribution to Islamic education was foundational in shaping a generation of scholars who were both religiously learned and intellectually capable, setting the foundation for the development of other institutions of learning, which would go on to influence the curricula of universities in both the Islamic world and medieval Europe [2], [14].

Relevance of Nizhomiah Madrasah to Islamic Education in Indonesia

Islamic education in Indonesia currently faces significant challenges in terms of curriculum preparation that can effectively integrate religious and general sciences. In many educational institutions, Islamic education is often trapped in the separation between the two disciplines. The curriculum in most Islamic educational institutions in Indonesia still emphasizes the teaching of religious sciences, while general sciences such as science and technology are often neglected. The educational model implemented in the Nizhamiyah madrasa, however, offers an opportunity to overcome these challenges by integrating religious and general sciences into one comprehensive curriculum. This integration is not merely an Islamization of general knowledge, but rather a synthesis of both domains, where religious knowledge complements and informs the understanding of scientific concepts, and vice versa. As Nasr [18] explains, Islamic knowledge is holistic, encompassing both religious and secular knowledge, with the aim of advancing the well-being of both individuals and society.

In the context of Islamic education in Indonesia today, this approach could improve the quality of existing education by offering students not only religious teachings but also skills and knowledge relevant to the demands of the modern world. Al-Attas [19] argues that Islamic education should develop a holistic view, where religious teachings and secular sciences are intertwined to foster a balanced intellectual and moral character. The integration seen in the Nizhamiyah madrasa was grounded in the belief that knowledge, whether religious or secular, serves the greater purpose of advancing individual and societal well-being. By applying a holistic curriculum, as seen in the Nizhamiyah model, students could be taught to view science through an Islamic ethical and philosophical lens, while simultaneously gaining a deep understanding of empirical sciences.

Such an approach would not only foster intellectual growth but also the development of a generation that is both knowledgeable in their faith and capable of addressing global challenges. For Indonesia, a Muslim-majority country, adopting this integrated curriculum could lead to the development of a more holistic Islamic education system that balances religious teachings with contemporary knowledge, preparing students to contribute effectively to both the spiritual and technological progress of society [2], [14], [18], [19], [20].

Development of Global Intellectual Networks

One of the major contributions of the Nizhamiyah madrasa was its ability to build robust intellectual and institutional networks that connected the Islamic world with centers of learning in both the East and West. The madrasa became not only a hub of scholarship but also a model of institutional excellence that produced great scholars such as Al-Ghazali in theology and philosophy, and Fakhr al-Din al-Razi in tafsir and natural sciences—individuals who engaged in critical discourse across disciplines, some of which later intersected with Western intellectual traditions [2], [9]. These networks were supported by a systematic curriculum, patronage from the state (notably under Nizam al-Mulk), and a commitment to academic rigor that encouraged open intellectual exchange and interdisciplinary inquiry [14], [21].

In the context of Indonesia today, Islamic education can learn from this model by institutionalizing international partnerships, establishing joint research centers, initiating faculty and student exchange programs, and integrating multilingual curricula to foster global academic engagement. For example, Islamic universities and pesantren could collaborate with international Islamic studies departments or global research institutes to create dual-degree programs, host global conferences, and publish in international scholarly journals—thus positioning Indonesian Islamic education as a serious contributor to global academic discourse [18], [20].

Such institutional development would require not only policy reforms but also the creation of strategic frameworks at the ministerial and institutional levels. These would include the establishment of an international office in every Islamic higher education institution, greater investment in ICT infrastructure for virtual collaborations, and curriculum reforms that encourage multilingualism and comparative religious studies [22], [23], [24], [25]. By emulating the intellectual openness and strategic foresight of the Nizhamiyah model, Indonesia can elevate the quality and reputation of its Islamic education system while preparing students to become globally engaged and intellectually diverse leaders.

Character and Morality Building

Madrasah Nizhamiyah not only focused on teaching religious and rational sciences, but also placed significant emphasis on character formation (*tahdzīb al-akhlāq*). The curriculum and educational ethos of Nizhamiyah promoted core values such as discipline, justice, humility, respect for teachers, social responsibility, and leadership grounded in ethical conduct [2], [9]. These values were not taught separately, but were embedded in the learning process through mentorship-based pedagogy, daily interactions, and the moral examples set by prominent scholars such as Imam al-Ghazali, who emphasized the purification of the soul (tazkiyat al-nafs) and ethical reasoning in all aspects of life (Al-Ghazali, *Ihya' 'Ulum al-Din*) [12].

In the context of Islamic education in Indonesia, this integrated approach to character building is highly relevant, especially in facing the socio-moral complexities of the digital era—where students are increasingly exposed to challenges such as digital ethics, instant gratification, and social disconnection. Building character traits such as discipline (*al-intiẓām*), respect for teachers (*ta'ẓīm al-mu'allim*), honesty (*ṣidq*), and a sense of responsibility (*'amānah*) is essential to nurturing well-rounded individuals who not only possess intellectual competence but also spiritual and moral depth [26], [27]. To implement this in Indonesian Islamic education, character education must be integrated within every subject, not treated as an isolated module. Teachers need to be trained not only in subject expertise but also in akhlak pedagogy, and school environments should foster holistic learning climates that promote spiritual practice (such as congregational prayers), mutual respect, and community engagement.

Dynamic and Inclusive Curriculum Adaptation

Islamic education in Indonesia often faces criticism for having a curriculum that is too rigid and less adaptive to the demands of contemporary life. One potential solution can be drawn from the educational model of Madrasah Nizhamiyah, which was revolutionary in its time. Unlike earlier madrasah models that primarily focused on religious sciences *(al- 'ulūm al-naqliyyah)* such as fiqh, tafsir, and hadith, Nizhamiyah introduced a structured curriculum that also integrated rational sciences (*al- 'ulūm al-'aqliyyah)*—including logic *(manṭiq)*, philosophy (falsafah), astronomy *('ilm al-hay'ah)*, mathematics *(riyāḍiyyāt)*, and medicine *(ṭibb)*—within the formal educational setting [2], [9].

This inclusion of diverse disciplines was a significant innovation that marked a shift from traditional rote-based learning towards a more comprehensive and interdisciplinary approach, aiming to produce scholars *('ulamā')* who were intellectually versatile and socially responsive. The curriculum encouraged analytical thinking, debate *(munāẓarah)*, and the application of knowledge for the benefit of society—setting it apart from earlier educational forms that often limited students to narrow fields of religious study [18], [19].

In the context of Indonesia today, where Islamic education still tends to emphasize religious knowledge without sufficient integration of science and technology, the Nizhamiyah model serves as a valuable inspiration. A modern adaptation of this approach could involve curriculum redesign that includes subjects such as digital literacy, environmental science, entrepreneurship, and civic education−taught alongside core Islamic studies. This integration would help students become not only spiritually grounded but also intellectually competitive and socially engaged, thereby addressing educational inequality and promoting inclusive development.

Challenges of Implementing the Nizhomiah Model in Indonesia

While the Nizhamiyah madrasah education model offers significant potential for the development of Islamic education in Indonesia, its implementation faces several contextual challenges. One of the main challenges is the need to adapt the integrated curriculum−combining religious and general sciences−to the local socio-cultural context of Indonesia. Given the diversity in ethnicity, language, and educational background across the archipelago, a uniform application of such a model may not be effective. Local wisdom and societal needs must be taken into account to ensure relevance and acceptance of the curriculum [26], [28].

Another critical challenge lies in the availability of educational resources and infrastructure, especially in rural or underdeveloped regions. Many madrasahs and pesantren still struggle with limited access to quality facilities, teaching materials, and well-trained educators [29]. This disparity impacts the consistency and quality of education delivery. Moreover, the professionalism and pedagogical competence of teaching staff remain a crucial issue; many educators lack adequate training in interdisciplinary teaching that integrates both religious and secular subjects [30]. To address these issues, strategic efforts are required, such as: (1) developing context-sensitive curriculum models, (2) providing capacity-building programs for teachers, and (3) strengthening educational management at the institutional level. These steps are essential to realize a holistic and integrated Islamic education model inspired by Nizhamiyah, which not only upholds the richness of Islamic knowledge but also equips students with the skills needed in a rapidly changing world.

Collaboration with the Global World

In this era of globalization, Islamic education in Indonesia needs to develop a wider international network. Madrasah Nizhomiah can serve as a model in this regard, with its ability to establish links with the Western world. Islamic education in Indonesia can benefit greatly from exchanging knowledge, ideas and experiences with international educational institutions. This collaboration can enrich the perspective of Islamic education in Indonesia and help students to develop a broader understanding of the world, as well as prepare them to play a role in a global society [31], [32].

Addressing Equitable Access to Islamic Education

One of the biggest challenges in Islamic education in Indonesia is unequal access to quality education. Many regions, especially those located in remote areas, still lack adequate educational facilities. Madrasah Nizhomiah, although initially restricted to certain circles, developed an education system that was inclusive and accessible to various levels of society. In the Indonesian context, it is important to ensure that Islamic education is accessible to all, regardless of their social or economic background. Providing adequate educational facilities and improving the quality of teaching in remote areas will greatly contribute to the equitable distribution of quality Islamic education [6].

The study of the Nizhamiyah madrasa reveals an educational approach that remains highly relevant to the development of Islamic education today, particularly in the Indonesian context. Established by Nizam al-Mulk in the 11th century, the madrasa became a pioneer in integrating religious sciences (such as fiqh, tafsir, and kalam) with general sciences (including philosophy, mathematics, logic, and astronomy). This integration reflects a balanced vision of education, where faith and reason co-exist to cultivate holistic human development [2], [9].

This approach aligns well with constructivist learning theory, which posits that knowledge is constructed through experience, reflection, and interaction with the environment [15]. By integrating theoretical and practical aspects of knowledge, the Nizhamiyah model encourages critical thinking and contextual application−traits urgently needed in facing modern educational demands.

However, the current state of Islamic education in Indonesia often reveals a sharp dichotomy between religious and general knowledge. Many institutions still maintain parallel curricula that treat religious education and general science as separate, rather than complementary domains. This fragmentation has several consequences: (1) religious knowledge becomes abstract and disconnected from contemporary challenges, and (2) general knowledge is presented without spiritual or ethical grounding [19], [26], [28]. Such compartmentalization hampers the formation of well-rounded individuals who are spiritually grounded and intellectually competent.

The core problem in integrating knowledge in Islamic education today lies in the absence of a unified epistemological framework that accommodates both revelation-based and rational/scientific knowledge. Efforts toward Islamization of knowledge, as proposed by al-Attas (1993) and others, have not yet been widely adopted or institutionalized in Indonesia's curriculum systems. As a result, many educators and policymakers still struggle to conceptualize and implement integrated learning that is both Islamic in worldview and modern in pedagogical practice[8].

Thus, the Nizhamiyah model offers a valuable reference point−not merely as a historical legacy but as a pragmatic paradigm for rethinking curriculum design. Adopting this approach could lead to a recontextualized Islamic education that links the sacred and the scientific, fosters analytical reasoning, and promotes moral responsibility in addressing contemporary social and global challenges [2], [9], [33].

The application of integral education theory, which emphasizes that education should encompass all aspects of human life−intellectual, spiritual, emotional, and social−is highly relevant to Islamic education in Indonesia [26], [28]. However, the main problem lies in the implementation: Islamic educational institutions in Indonesia still struggle to determine which general sciences are relevant to be integrated into the religious curriculum, and how such integration should be structured pedagogically. Currently, religious and general knowledge are often taught in silos, without a shared epistemological foundation [34]. For integration to be meaningful, subjects such as environmental science, digital literacy, health science, and economics−especially those with ethical implications− should be contextualized through Islamic perspectives to foster not only scientific competence but also moral discernment.

The Nizhamiyah madrasa provides a valuable historical model for this integration. It offered a curriculum that combined theology with logic, philosophy, mathematics, and astronomy− disciplines that were previously absent or marginal in Islamic education. In modern Indonesia, this approach could be adapted by developing interdisciplinary modules (*e.g., " Fiqh of the Environment,"" Technological Ethics in Islam")* that train students to navigate contemporary issues with both religious insight and scientific literacy.

In terms of character education, while Islamic education in Indonesia has emphasized moral values through subjects like Akhlak

and Fiqh, the current issue is that character formation is often limited to theoretical instruction, lacking structured, experiential implementation. Drawing from Nizhamiyah's emphasis on justice, leadership, and responsibility, character education should include programs that actively engage students in leadership training, community service, interfaith and interethnic dialogue, and simulation-based moral decision making. For example, students should experience how to lead ethically in school organizations, how to respond to corruption through ethical debates, or how to manage pluralism respectfully. This requires a pedagogical shift toward values internalization through action [35].

As for building global intellectual networks, the problem is twofold: (1) limited proficiency in international academic discourse (e.g., English, Arabic) among students and teachers; and (2) lack of institutional partnerships that allow for knowledge exchange. Unlike Nizhamiyah, which served as a knowledge bridge between East and West, many Indonesian Islamic institutions remain isolated from global academic developments. To emulate Nizhamiyah's success, Indonesia should implement concrete actions such as establishing dual-degree programs, virtual exchange classrooms, collaborative research with international Islamic studies centers, and participation in global educational summits. Institutions like UIN and pesantren-university hybrids could lead this initiative.

Overall, implementing these educational ideals in Indonesia faces serious systemic challenges, including bureaucratic rigidity, lack of interdisciplinary teacher training, and uneven educational resources between urban and rural areas. Hence, a phased reform is needed—starting from pilot projects that develop integrative curricula, to teacher capacity-building programs, to long-term policy support from the Ministry of Religious Affairs and Ministry of Education [29], [31], [36], [37].

The next recommendation is the need for multicultural education that teaches students to appreciate differences and build a more global intellectual network [38]. Madrasah Nizhomiah shows how education can function as a bridge between cultures, which is very relevant to Indonesia's ethnic and religious diversity. Islamic education in Indonesia should open up more space for students to understand and appreciate cultural diversity, both local and global. By introducing the values of tolerance and inclusivity, Islamic education can help create a generation that is not only intelligent, but also has a sense of empathy and the ability to cooperate with various social and cultural group [39].

CONCLUSION

In conclusion, the Nizhomiah madrasa is a model of Islamic education that is very relevant to Islamic education in Indonesia today. The curriculum that integrates religious and general sciences, as well as the scientific approach that emphasizes critical and rational thinking, is very relevant to be applied in Indonesian Islamic education. In addition, the historical traces of the Nizhomiah madrasa that built intellectual networks between East and West provide inspiration for the development of Islamic education in Indonesia that is more inclusive, professional, and globally competitive.

Nizhomiah madrasa has a major contribution in the development of Islamic education that is structured, systematic, and integrates religious knowledge with general knowledge. The educational model applied in this madrasah is very relevant to the challenges of Islamic education in Indonesia, which currently requires reforms in curriculum, management, and character building. By adapting the principles of the Nizhomiah madrasa, Islamic education in Indonesia can become more holistic, relevant to the times, and ready to compete at the global level. Although there are challenges in terms of implementation, this educational model provides a solid foundation for creating a more adaptive, inclusive and quality Islamic education in Indonesia.

REFERENCES

[1] M. Romzi, M. L. Musthofa, and S. F. Noviyanti, "The Role of Nizamiyah in the Development of Early Islamic Education," *Maharot: Journal of Islamic Education*, vol. 8, no. 1, p. 89, Jun. 2024, doi: 10.28944/maharot. v8i1.1652.

[2] M. George, *The rise of colleges: institutions of learning in Islam and the West*. Edinburgh: Edinburgh University Press, 1981.

[3] J. P. Berkey, *The Transmission of Knowledge in Medieval Cairo: A Social History of Islamic Education*. Princeton Legacy Library, 2014.

[4] A. Azra, *The Origins of Islamic Reformism in Southeast Asia: Networks of Malay-Indonesian and Middle Eastern `Ulama Eastern `Ulama' in the Seventeenth and Eighteenth Centuries*, vol. 254. University of Hawaii Press, 2004.

[5] I. N. Fauziah, A. Al Ghifari, and N. M. Shalihah, "Kebijakan Pendidikan Madrasah An-Nizhamiyyah Di Masa Daulah Bani Saljuk," *Journal of International Multidisciplinary Research*, [online]. Available: https://journal.banjaresepacific.com/index.php/jimr

[6] N. L. Kamsi, "Nizamul Mulk dan Madrasah Nizamiyah Relasi Lembaga Pendidikan dan Penguasa (Madrasah dan Otodoksi Pendidikan)," *Edification Jurnal Pendidikan Agama Islam,* vol. 5, no. 1, pp. 11–24, Aug. 2022, doi: 10.37092/ej. v5i1.407.

[7] S. Sumadi, "Memahami Transmisi Pendidikan Islam di Madrasah," *Journal of Education and Religious Studies*, vol. 2, no. 03, pp. 83–87, Dec. 2022, doi: 10.57060/jers. v2i03.75.

[8] M. Alifuddin, A. Alhamuddin, and N. Nurjannah, "School of Anak Laut (Sea Children): Educational Philanthropy Movement in Bajo Community of Three-Coral World Center," *Jurnal Iqra' : Kajian Ilmu Pendidikan*, vol. 6, no. 1, pp. 164–179, Jun. 2021, doi: 10.25217/ji. v6i1.1057.

[9] M. Nakosteen, *History of Islamic Origins of Western Education, A.D. 800–1350: With an Introduction to Medieval Muslim Education*, vol. 6. Cambridge University Pres, 1966.

[10] I. and M. I. I. Al-Nadim, *The Fihrist of al-Nadīm: a tenth-century survey of Muslim culture*, vol. 1. Columbia University Press, 1970.

[11] M. Alifuddin, A. Alhamuddin, A. Rosadi, and U. Amri, "Understanding Islamic Dialectics in The Relationship with Local Culture in Buton Architecture Design," *KARSA: Journal of Social and Islamic Culture*, vol. 29, no. 1, pp. 230–254, Jun. 2021, doi: 10.19105/karsa. v29i1.3742.

[12] Al-Ghazali, *The Revival of the Religious Sciences (Ihya' 'Ulum al-Din). Translated by T.J. Winter.* Cambridge: Islamic Texts Society, 2005.

[13] M. Boli, "PENDIDIKAN ISLAM DAN TANTANGAN MODERNITAS," *el-Idaroh; Jurnal Manajemen Pendidikan Islam,* vol. 2, no. 1, 2018.

[14] D. Gutas, *Greek Thought, Arabic Culture: The Graeco-Arabic Translation Movement in Baghdad and Early 'Abbasaid Society (2nd-4th/5th-10th c.)*. Routledge, 2012.

[15] J. W. Creswell, *Qualitative Inquiry and Research Design: Choosing Among Five Approaches. 4th ed.* Thousand Oaks, CA: SAGE Publications, 2014.

[16] U. Marzolph, *The Arabian Nights and Orientalism: Perspectives from the Arab World. Austin.* University of Texas Press, 2004.

[17] B. Hancock, *An Introduction to Qualitative Research. 2nd ed.* New York: age Publications, 2002.

[18] S. H. Nasr, *Islamic Science: An Illustrated Study.* World of Islam Festival Publishing Company, 1976.

[19] S. M. N. Al-Attas, *The Concept of Education in Islam: A Framework for an Islamic Philosophy of Education.* International Institute of Islamic Thought, 1999.

[20]   Z. Sardar, *Islamic Futures: The Shape of Ideas to Come*. Curzon Press, 1985.

[21]   F. Rosenthal, *Knowledge Triumphant: The Concept of Knowledge in Medieval Islam*. Brill, 1975.

[22]   A. Alhamuddin, *Politik Kebijakan Pengembangan Kurikulum di Indonesia Sejak Zaman Kemerdekan Hingga Reformasi (1947-2013)*. Jakarta: Prenada Kencana, 2019.

[23]   A. Alhamuddin, "4-Kurikulum Pendidikan Tinggi Keagamaan Islam Mutu Dan Relevansi," vol. 3, no. April, pp. 1–15, 2016.

[24]   A. Alhamuddin, "Sejarah Kurikulum Di Indonesia (Studi Analisis Kebijakan Pengembangan Kurikulum)".

[25]   Alhamuddin, A. Fanani, I. Yasin, and A. Murniati, "Politics of Education in Curriculum Development Policy in Indonesia from 1947 to 2013: A Documentary Research," *Jurnal Pendidikan Islam*, vol. 9, no. 1, pp. 29–56, Jun. 2020, doi: 10.14421/jpi.2020.91.29-56.

[26]   A. Azra, *Pendidikan Islam: Tradisi dan Modernisasi Menuju Milenium Baru*. Logos Wacana Ilmu, 2012.

[27]   Alhamuddin and F. F. R. S. Hamdani, "Hidden Curriculum: Polarisasi Pesantren dalam Upaya Membentuk Kesalehan Individu Dan Sosial (Case Study Pondok Modern Darussalam Gontor Ponorogo)," *AL-MURABBI: Jurnal Studi Kependidikan dan Keislaman*, vol. 5, no. 1, pp. 50–65, 2018, [Online]. Available: http://ejournal.kopertais4.or.id/mataraman/index.php/murabbi/article/view/3351

[28]   M. Zuhdi, "Modernization of Indonesian Islamic schools' curricula, 1945–2003," *International Journal of Inclusive Education*, vol. 10, no. 4, pp. 415–427, 2003.

[29]   A. Alhamuddin, "Abd Shamad al-Palimbani's Islamic education concept: Analysis of Kitab Hidayah al-Sālikin fi Suluk Māsālāk lil Muttāqin," *Qudus International Journal of Islamic Studies*, vol. 6, no. 1, pp. 89–102, 2018, doi: 10.21043/qijis. v6i1.3717.

[30]   Hasbullah, *Sejarah Pendidikan Islam di Indonesia: Lintasan Sejarah Pertumbuhan dan Perkembangan*. Jakarta: RajaGrafindo Persada, 2015.

[31]   S. M. A. Al-Hasani, "Learning Institutes of Pre-Islam and Early Islamic Century and Their Transformation into Formal Madrasah in 11th Century," *Asian Journal of Education and Social Studies*, vol. 3, no. 2, pp. 1–9, Jan. 2019, doi: 10.9734/ajess/2019/42932.

[32]   S. Mahbubul and A. Al Hasani, "The Islamic Origins of European Modern Education with an Introduction to Baghdad's Medieval Muslim Madrasah and Library," *Journal Of Creative Writing*, vol. 6, pp. 12–26.

[33]   U. Fitrah Widia Rahman and F. Masyhudi, "Analisis Kritis Terhadap Madrasah Nizamiyah, serta Pengaruhnya Terhadap Perkembangan Pendidikan Islam, dan Ortodoksi Sunni," *Journal of International Multidisciplinary Research*, vol. 1, no. 2, pp. 397–405, [Online]. Available: https://journal.banjaresepacific.com/index.php/jimr

[34]   S. M. N. Al-Attas, *Islam and Secularism*. Kuala Lumpur: ISTAC, 1993.

[35]   D. A. Koesoema, *Pendidikan Karakter: Strategi Mendidik Anak di Zaman Global*. Jakarta: Grasindo, 2007.

[36]   Alhamuddin, "Enhancing Social Skills in Islamic Religious Education at the Junior High School Level: A Differential Instruction Approach," *Jurnal Pendidikan Islam Indonesia*, vol. 8, no. 2, 2024, doi: 10.35316/jpii. v8i2.565.

[37]   A. Alhamuddin, E. Surbiantoro, and R. Dwi Erlangga, "Character Education in Islamic Perspective," 2022.

[38]   M. K. Kavitha Devi and M. S. Thendral, "Using Kolb's Experiential Learning Theory to Improve Student Learning in Theory Course," *Journal of Engineering Education Transformations*, vol. 37, no. 1, pp. 70–81, 2023, doi: 10.16920/jeet/2023/v37i1/23133.

[39]   S.- Joseph, "Curriculum Politics in Higher Education: What Educators need to do to Survive," *International Journal of Higher Education*, vol. 4, no. 3, Apr. 2015, doi: 10.5430/ijhe. v4n3p14.

EDU GLOBAL

JOURNAL
ISLAMIC EDUCATION

Edu Global: Journal of Islamic Education is an academic journal dedicated to the study of Islamic education across various dimensions, including theory, practice, innovation, and development at both local and global levels. The journal aims to serve as a scholarly platform for researchers, academics, and practitioners in Islamic education to publish research findings, conceptual articles, and in-depth literature reviews