

# Public Perspectives on the Role of Madrasah Tsanawiyah in Preserving Religious Values in the Digital Age

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## ARTICLE INFO

### Keywords:

Digital Era;  
Madrasah;  
Society

### Article history:

Received 2025-01-24

Revised 2025-05-03

Accepted 2025-06-30

## ABSTRACT

In the digital age, adolescents face challenges in maintaining religious values due to pervasive online influences. Madrasahs, as institutions of Islamic education, are increasingly expected to uphold these values. This study investigates public perceptions of the role of *Madrasah Tsanawiyah* (MTs) in preserving religious principles, focusing on MTs Muslimin Citapen as a case study. A quantitative, descriptive-correlational design was employed, involving 100 randomly selected respondents from the local community. Data were collected through a structured Likert-scale questionnaire and analyzed using SPSS. Analytical methods included normality testing, Pearson correlation, and linear regression to explore the relationship between madrasah roles and public perception. The analysis revealed a strong positive correlation ( $r = 0.856$ ) between the public's perception of the madrasah's role and its effectiveness in preserving religious values. Regression analysis showed that 84.1% of public perception variance is explained by the functional role of the madrasah. These findings emphasize the significant role of madrasahs in maintaining religious values amid digital disruption. The high correlation suggests strong community trust in the institution's moral and spiritual guidance. Madrasahs serve as vital anchors of religious education in the digital era. However, the study's limited scope and sample size suggest the need for broader research to enhance Islamic education's digital integration across various regions.

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## 1. INTRODUCTION

The digital era has brought significant changes in various aspects of life, including in the world of Islamic education (Haleem, Javaid, Qadri, & Suman, 2022; Hamdani, 2023; Supriatna, Fachriyah, & Nasir, 2023). Digital transformation, which is marked by the massive use of the internet, smartphones,

social media, and various other digital platforms, has changed people's mindsets, lifestyles, and ways of interacting, especially among the younger generation. APJII (Indonesian Internet Service Providers Association) data in 2023 shows that 89% of Indonesian teenagers are active internet users with an average of 7-8 hours of use per day. In the midst of this situation, religious educational institutions, such as madrasas, are faced with a great challenge to remain relevant while being able to maintain religious values that are the moral foundation of society (Anggiana & Gunawan, 2023; Kim, Lee, & Kwak, 2020; Waycott, Jenny & Bennett, Sue & Kennedy, Gregor & Dalgarno, Barney & Gray, 2010).

Previous research by Rahman (2024) shows that 65% of the younger generation experiences a dilemma between maintaining religious values and following digital trends. Meanwhile, Nursiah's study (2024) revealed that there is a need to revitalize the integration of digital technology with Islamic values. MTs Muslimin Citapen Cihampelas, West Bandung, consistently strives to instill Islamic values in its students. However, in this era of rapid digitalization, questions arise about how the community views the role of this madrasah in maintaining morality and religious values (Merma-Molina, Urrea-Solano, González-Víllora, & Baena-Morales, 2023; Pérez Fontán et al., 2022; Suryadarma & Haq, 2010). The public's perception of madrasahs is closely related to cultural and religious values that have been embedded for a long time (Kholifah, Supriyadi, & Suwarjo, 2019; Mawarni, Milama, & Sholihat, 2021; Nabilah & Jinan, 2024; Taufiqurrahman, 2019; Zamzami & Sarmini, 2024). The community views madrasahs as more than just educational institutions – they see them as moral bulwarks that are expected to shape students' character and help them maintain their religious principles in the midst of changing times.

Digital technology brings new learning opportunities, such as easy access to online knowledge resources and learning materials (Aisida, 2021; Kumar et al., 2023; Pordelan & Hosseinian, 2022; Taadi, Raharjo, & Deliana, 2019; Warner & Myers, 2010). However, digitalization also has a negative impact, including exposure to content that is contrary to Islamic values and the potential for reduced face-to-face interaction that has been a hallmark of religious education in madrasahs. This raises concerns among traditional societies about the impact of technology on the morality of the younger generation. People who value faith-based education are often worried that digitalization can erode the noble values they hold (Aini & Nugroho, 2023; Aprianti, Dayurni, Fajari, Pernanda, & Meilisa, 2022; Audrin & Audrin, 2022; Willis, Williamson, Chuu, & Dabney, 2022; Zhou, 2024).

Public perception plays an important role in determining how successful the madrasah is in carrying out its mission. Positive perceptions can provide stronger moral and social support for these educational institutions, while negative perceptions can hinder the implementation of digital-based education programs. Therefore, a deep understanding of how the community views the role of MTs Muslimin Citapen is essential, especially in developing effective strategies to integrate technology without sacrificing the religious values that are at the core of madrasah education.

This research has a significant urgency to analyze how the community views the role of Madrasah Tsanawiyah in facing the challenges of the digital era. This urgency can be explained through several interrelated perspectives in the context of contemporary Islamic education. Thus, research on public perception of the role of Madrasah Tsanawiyah is not only important as an evaluation instrument, but also as an integral component in the development of Islamic education that is adaptive to the digital era. This analysis is fundamental in ensuring that madrasahs remain relevant as Islamic educational institutions that are able to maintain religious values without overriding technological advances (Mulasi & Saputra, 2019; T. M. H. Nasir, 2023; Sulistiyani, Wibawa, Krisnajaya, & Yuliani, 2019).

The digital era has significantly transformed religious education, particularly for Islamic institutions like madrasahs, which serve as guardians of spiritual and moral values. The widespread adoption of digital tools and platforms has introduced new opportunities for learning, such as easier access to knowledge resources and interactive learning environments. However, it has also exposed students to content that may conflict with Islamic principles, thereby raising concerns about the erosion of traditional values. This duality underscores the relevance of examining how madrasahs navigate these challenges in preserving religious values while staying relevant in a digitalized world.

Madrasahs face distinct challenges in balancing the preservation of religious values and embracing digital adaptation. One significant challenge is addressing the influence of extensive digital consumption among adolescents, who spend an average of 7–8 hours daily online, as reported by APJII in 2023. Exposure to inappropriate content and reduced face-to-face interaction have prompted concerns about declining moral integrity. For instance, 65% of youth reportedly struggle to balance digital trends with religious principles. These challenges compel madrasahs to integrate digital tools into their curricula without compromising their foundational values.

Previous studies have explored the influence of digitalization on Islamic education, focusing on curriculum integration and technological applications. However, limited attention has been given to public perceptions of madrasahs' roles in this context. This study addresses this gap by investigating the community's views on MTs Muslimin Citapen, a madrasah known for its consistent efforts to uphold Islamic values amidst rapid digitalization. Located in West Bandung, this institution exemplifies the balance between tradition and modernization, making it an ideal case study (Ambya, Erihadiana, Priatna, & Nasir, 2025). By examining public perceptions, this research contributes to understanding how madrasahs can effectively navigate digital challenges while maintaining their role as moral anchors in society.

## 2. METHODS

This study uses a quantitative approach (Sugiyono, 2021), with a positivistic paradigm that focuses on testing theories through numerical measurement of research variables. This study expanded the sample size to at least 100 respondents, using stratified random sampling to ensure proportional representation based on demographics such as age, gender, and roles (e.g., parents, alumni, community leaders). The population was broadened to include stakeholders living outside the 5-kilometre radius of MTs Muslimin Citapen to capture diverse perspectives. Randomization was achieved by dividing the population into strata and selecting participants randomly from each group to enhance representativeness.

The questionnaire was designed with sub-variables like educational programs, religious activities, community interaction, and digital adaptation, measured on a 1–5 Likert scale. Reliability testing with Cronbach's alpha confirmed its consistency. Data analysis included linear correlation to measure relationships and regression for causality. Ethical standards were upheld by obtaining informed consent, maintaining anonymity, and securing ethics board approval. Digital adaptation was assessed through the use of online learning tools, social media engagement, and participation in virtual religious activities. This approach ensures a thorough understanding of public perceptions of madrasah roles in the digital era.

## 3. FINDINGS AND DISCUSSION

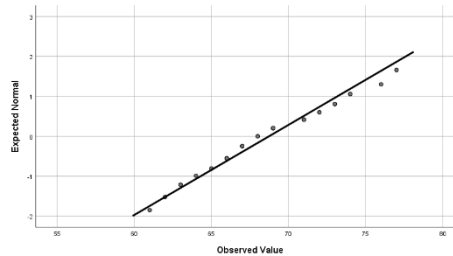
### 3.1 Findings

The SPSS version 26 software was utilized to process the data from the findings of this investigation. Among the following hypotheses are the Alternative Hypothesis (H1) and the Zero Hypothesis (H0): As a test condition for inferential statistics, the normality test is used to determine whether or not the data originates from a normally distributed population. In this instance, the researcher conducted a normalcy test using Kolmogorov-Smirnov.

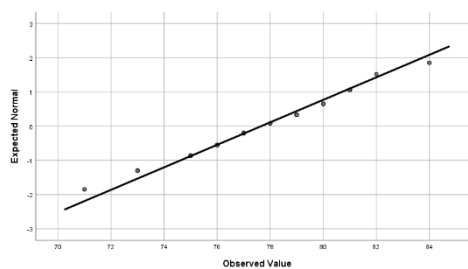
**Table 1.** Tests of Normality

	Statistic	Sig.
The Role of Madrasah	.118	.200*
Public Perception	.102	.200*

The significance value for the role of madrasah and public perception in Kolmogorov-Smirnov analysis is 0.200, according to the data in Table 1 above. The data was found to have a significant value larger than 0.05, and  $H_0$  was approved based on the decision-making criteria, indicating that the data is normally distributed.



**Figure 1.** Normal Q-Q Free Variable Plot



**Figure 2.** Normal Q-Q Plot Variable Bound

It is evident from the Normal Q-Q Plot of Madrasah Role and Community Perception diagram that the data or points are on the diagonal line and dispersed around it, indicating that the data is normally distributed. Additionally, the correlation values show a strong association as follows:

**Table 2.** Correlation Value Interpretation

The Coefficient Interval	Category
0.00 – 0.19	Very Low
0.20 – 0.39	Low
0.40 – 0.59	Enough
0.60 – 0.79	Strong
0.80 – 1.00	Very Strong

The results of inferential statistics on correlation calculations using SPSS version 26 are as follows.

**Table 3.** Correlations

		The Role of Madrasah	Public Perception
The Role of Madrasah	Pearson Correlation	1	.856**
	Sig. (2-tailed)		.000
Public Perception	Pearson Correlation	.856**	1
	Sig. (2-tailed)	.000	

The significant value for the role of madrasah and community perception, as determined by the data on the correlations display, is 0.000. According to the statistics, the significance value was less than 0.05, which means that it was rejected based on the decision-making criteria. This suggests that public opinion significantly influences Madrasah Tsanawiyah's ability to uphold religious ideals in the digital

age. In the meantime, the correlation coefficient, which falls between 0.80 and 1.00, is 0.856. According to the interpretation rules, there is a very significant correlation between the independent variable and the independent variable. It is also evident from the Correlations view that there is a considerable correlation between the two variables because both the free and bound variables have a \*\* sign.

**Table 4.** Model Summary

Type	R	R Square	Adj R Square	Std. Error
1	.856 <sup>a</sup>	.841	.836	.856

According to the data in the Model Summary display, the R Square value, also known as the Determination coefficient, which indicates how well the regression model formed by the interaction between the role of the madrasah and community perception was obtained, came out to be 0.841. This means that the role of the madrasah influences community perception results by 84.1%, with other factors influencing the remaining 15.9%.

**Table 5.** Coefficients

Type	Unstandardized B	Coef. Std. Error	Sig.
(Constant)	31.647	2.635	.000
The Role of Madrasah	.619	.031	.000

The regression equation model is  $Y = 31.647 + 0.619X$ , which is based on the data in the Coefficients view that was derived using the constant coefficient and variable coefficient in the Unstandardized Coefficients B column. With a regression coefficient of 0.619, it can be concluded that if the madrasah's role is equal to zero, the community's perception is 31.647. This indicates that if the madrasah's function grows by one unit, the community's perception will also increase by 0.619.

The findings indicate that madrasahs like MTs Muslimin Citapen play a pivotal role in preserving religious values in the digital era, as evidenced by the strong correlation between public perception and their educational programs. To strengthen this role, madrasahs can implement specific initiatives such as integrating Islamic principles into digital platforms, creating interactive online classes, and promoting social media campaigns that emphasize religious values. Community engagement programs, such as workshops for parents and collaborative events with alumni, can also enhance public perception and provide holistic support for students navigating digital challenges.

One limitation of this study is its relatively small sample size and regional scope, which may not fully capture the diversity of public perceptions across different demographics or areas. Future research should involve larger and more varied samples, including stakeholders from rural and urban contexts, to validate and expand upon these findings. Exploring the experiences of madrasahs that have successfully integrated digital tools without compromising religious values would also provide practical insights into best practices for balancing tradition and modernization.

Digital tools currently utilized by madrasahs, such as e-learning platforms and virtual religious discussions, can be further optimized by incorporating culturally relevant content and interactive features. For example, digital storytelling or gamified religious learning experiences could appeal to younger audiences while reinforcing moral teachings. Additionally, local cultural values and traditions should be considered when designing programs, as these strongly influence public perceptions. By addressing societal expectations, enhancing digital engagement, and fostering collaborative

relationships, madrasahs can continue to serve as vital institutions that balance modernity and tradition in religious education, both in Indonesia and globally.

### 3.2 Discussion

Perception can be conceptualized in two primary ways: as a direct response to external stimuli or as a process of understanding mediated through the five senses (Situmorang, Fahriany, & Nahartini, 2022; Suyadi & Aisyah, 2021). Both perspectives underscore the significance of sensory input and reception in forming perceptual experiences. Fundamentally, perception is a cognitive mechanism that enables individuals to interpret and make sense of their environment. However, individual perceptions are shaped by both internal and external factors (Kurniawan, Rachmawati, Ayu, Ong, & Redi, 2024). Internal influences include cognition, emotions, motivation, and belief systems, while external determinants encompass education, personal experiences, and environmental context.

These elements collectively influence how stimuli are received, interpreted, and understood. Perception can be measured through three key indicators: response (the lasting impression left by stimuli), opinion (idealistic or conceptual associations), and assessment (evaluations based on prevailing social norms) (Rathnayake, Nguye, & Ahn, 2025). Within the context of this study, perception refers to the collective responses, opinions, and assessments expressed by society toward *madrasahs*. Here, "society" denotes a group of individuals who live, interact, and share common values, culture, identity, and aspirations within a defined geographical area (Pandie, Lattu, Suwanto, & Lukmono, 2024).

The development of madrasahs stems from the reform of Islamic education, aiming to modernize the traditional *pesantren* system. These institutions were established to ensure that their graduates attain educational standards comparable to those of public schools (Nadia, 2020). As such, madrasahs serve as a bridge between classical Islamic education and contemporary educational methodologies. They integrate religious principles with academic rigor, striving to cultivate devout and knowledgeable individuals. Responding to societal demands, madrasahs have undergone substantial modernization in areas such as professionalism, institutional management, infrastructure, and curriculum development (Nasir et al., 2024). This evolution reflects a shift in focus—from solely spiritual objectives (*ukhrawi*) to also addressing worldly aspirations (*duniawi*).

Moreover, madrasahs play a transformative role in society by replacing outdated cultural norms with values more aligned with contemporary life. They function as centers for the socialization and internalization of religious values, contributing to the formation of character and spiritual integrity. According to Khuzaini (2023), the religious values emphasized in madrasahs can be categorized into five interrelated dimensions: (1) worship, which includes acts of devotion such as prayer and fasting; (2) the spirit of *jihad*, interpreted as dedication and perseverance, particularly in education; (3) morality and discipline, foundational to ethical behavior and punctuality; (4) exemplary behavior, modeled by teachers as role models; and (5) trust and sincerity, reflecting integrity and pure intentions in all actions (Setiyani, Liantoni, & Hatta, 2023; Supriatna et al., 2023). Collectively, these values establish a holistic framework for education and community life, positioning the madrasah as an institution committed to both spiritual enrichment and societal advancement (Suhendi, Khoiruddin, Ihsan, & Nasir, 2025).

## 4. CONCLUSION

This study highlights the vital role of madrasahs, like MTs Muslimin Citapen, in preserving religious values in the digital era. The strong correlation between public perception and madrasah programs underscores the community's trust in these institutions. To enhance their impact, madrasahs can integrate digital tools, such as interactive e-learning platforms and social media campaigns, while maintaining their religious mission. Collaborating with the community to ensure culturally relevant and engaging content can further strengthen their role. However, the study's small sample size and regional focus indicate the need for future research with larger and more diverse populations. Further

studies should explore how digital platforms affect religious education and compare perceptions in other regions. As madrasahs continue to adapt to digital advancements, their ability to balance tradition and modernity will be essential in shaping morally grounded and digitally savvy generations, reinforcing their significance in today's society.

**Acknowledgements:** The authors extend their gratitude to Dr. Mohamad Erihadiana, M.Pd., for his valuable guidance and feedback throughout this study. Appreciation is also expressed to all those who provided technical, administrative, and academic support.

## REFERENCES

- Aini, S. Q., & Nugroho, K. (2023). Zauj and Imara'ah in The Qur'an, Says Mutaradif (A Pre-Emptive Study of the Quran's Semantic Interpretation by Toshihiko Izutsu). *Proceeding ISETH (International Summit on Science, Technology, and Humanity)*, 1346–1357.
- Aisida, S. (2021). Values of Multicultural Islamic Education In Islamic Studies at High School. *Eduotec: Journal of Education and Technology*, 4(4), 691–707.
- Ambya, R., Erihadiana, M., Priatna, T., & Nasir, T. M. (2025). Modernization and National Identity : Quantitative Insights into the Role of Islamic Education in Malaysia. *Al-Ishlah: Jurnal Pendidikan*, 17(1), 878–893. <https://doi.org/10.35445/alishlah.v17i1.6611>
- Anggiana, A., & Gunawan, A. (2023). Challenges and Opportunities for Human Resource Management in the Industrial Era 4.0: Focus on the Integration of Technology and Human Resources. *Jurnal Ekonomi Dan Bisnis Digital*, 1(2), 252–258.
- Aprianti, F., Dayurni, P., Fajari, L. E., Pernanda, D., & Meilisa, R. (2022). The Impact of Gadgets on Student Learning Outcomes: A Case Study in Indonesia Junior High School Students. *International Journal of Education, Information Technology, and Others*, 5(5), 121–130. Retrieved from <https://doi.org/10.5281/zenodo.7446724>
- Audrin, C., & Audrin, B. (2022). Key factors in digital literacy in learning and education: a systematic literature review using text mining. *Education and Information Technologies*, 27(6), 7395–7419. <https://doi.org/https://doi.org/10.1007/s10639-021-10832-5>
- Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*, 3(February), 275–285. <https://doi.org/10.1016/j.susoc.2022.05.004>
- Hamdani, N. A. (2023). Scrutinizing Islamic Higher Education Institutions in Indonesia. *Jurnal Pendidikan Islam*, 9(1), 93–106. <https://doi.org/10.15575/jpi.v0i0.24478>
- Kholifah, N., Supriyadi, S., & Suwarjo, S. (2019). Hubungan Persepsi Peserta Didik Tentang Pola Asuh Orang Tua, Kebiasaan Belajar dengan Hasil Belajar. *Jurnal Inovatif Ilmu Pendidikan*, 1(1), 74–87.
- Kim, M., Lee, H., & Kwak, J. (2020). The changing patterns of China's international standardization in ICT under techno-nationalism: A reflection through 5G standardization. *International Journal of Information Management*, 54, 102145. <https://doi.org/https://doi.org/10.1016/j.ijinfomgt.2020.102145>
- Kumar, A., Hanjabam, M. D., Kishore, P., Uchoi, D., Panda, S. K., Mohan, C. O., ... Ravishankar, C. N. (2023). Exploitation of seaweed functionality for the development of food products. *Food and Bioprocess Technology*, 16(9), 1873–1903. <https://doi.org/https://doi.org/10.1007/s11947-023-03023-2>
- Kurniawan, A. C., Rachmawati, N. L., Ayu, M. M., Ong, A. K. S., & Redi, A. A. N. P. (2024). Determinants of satisfaction and continuance intention towards online food delivery service users in Indonesia post the COVID-19 pandemic. *Heliyon*, 10(1), e23298. <https://doi.org/10.1016/j.heliyon.2023.e23298>
- Mawarni, P., Milama, B., & Sholihat, R. N. (2021). Persepsi calon guru kimia mengenai literasi digital sebagai keterampilan abad 21. *Jurnal Inovasi Pendidikan Kimia*, 15(2), 2849–2863. <https://doi.org/https://doi.org/10.15294/jipk.v15i2.28394>

- Merma-Molina, G., Urrea-Solano, M., González-Víllora, S., & Baena-Morales, S. (2023). Future physical education teachers' perceptions of sustainability. *Teaching and Teacher Education*, 132, 104254. <https://doi.org/https://doi.org/10.1016/j.tate.2023.104254>
- Mulasi, S., & Saputra, F. (2019). Problematika Pembelajaran PAI pada Madrasah Tsanawiyah di Wilayah Barat Selatan Aceh. *Jurnal Ilmiah Islam Futura*, 18(2), 269–281.
- Nabilah, A., & Jinan, M. (2024). Persepsi Keluarga Dusun Pablengan Kulon terhadap Urgensi Pendidikan Agama Islam bagi Anak. *Ideguru: Jurnal Karya Ilmiah Guru*, 9(3), 1194–1200. <https://doi.org/10.51169/ideguru.v9i3.1040>
- Nadia, F. A. (2020). Effects of the Pesantren Law on Indonesia's Education System A Projection. In *Center for Indonesia Policy Studies*. Retrieved from <https://repository.cips-indonesia.org/tr/publications/346117/effects-of-the-pesantren-law-on-indonesias-education-system-a-projection%0Ahttps://www.econstor.eu/bitstream/10419/249432/1/CIPS-DP09.pdf>
- Nasir, T. M. H. (2023). Fostering Islamic Education Talents: Art Weeks for Junior High School Students. *AL-ISHLAH: Jurnal Pendidikan*, 15(4), 6102–6111. <https://doi.org/10.35445/alishlah.v15i4.1390>
- Nasir, T. M., Hermawan, A. H., Hasbiyallah, H., Permana, H. A., Sobariah, E. D. S., Nuroh, L., & Sahidin, D. (2024). Enhancing Decision-Making Skills in Islamic Religious Education: A Study on Utilizing PowerPoint-Assisted Puzzle Learning with the Make a Match Model. *AL-ISHLAH: Jurnal Pendidikan*, 16(2), 2657–2666. <https://doi.org/10.35445/alishlah.v16i2.4983>
- Pandie, D., Lattu, I. Y., Suwanto, S., & Lukmono, L. (2024). The construction of ethnoreligious identity among Muslims and Christians in Rote Ndao Regency, Indonesia. *IJoReSH: Indonesian Journal of Religion, Spirituality, and Humanity*, 3(1), 101–125. <https://doi.org/10.18326/ijoresh.v3i1.101-125>
- Pérez Fontán, M., Moreiras Plaza, M., Prieto Velasco, M., Quereda Rodríguez-Navarro, C., Bajo Rubio, M. A., Borràs Sans, M., ... Soriano Cabrer, M. S. (2022). Clinical guide of the Spanish Society of Nephrology on the prevention and treatment of peritoneal infection in peritoneal dialysis. *Nefrología (English Edition)*, 42, 1–55. <https://doi.org/https://doi.org/10.1016/j.nefro.2022.07.005>
- Pordelan, N., & Hosseinian, S. (2022). Design and Development of the Online Career Counselling: A Tool for Better Career Decision-Making. *Behaviour & Information Technology*, 41(1), 118–138. <https://doi.org/https://doi.org/10.1080/0144929X.2020.1795262>
- Rathnayake, A. S., Nguye, T. D. H. N., & Ahn, Y. (2025). *Factors Influencing AI Chatbot Adoption in Government Administration: A Case Study of Sri Lanka 's Digital Government*. 157(15), 1–29. <https://doi.org/https://doi.org/10.3390/admsci15050157>
- Setiyani, S., Liantoni, F., & Hatta, P. (2023). Level of Difficulty in Developing Android-Based Learning Media. *Jurnal Edutech Undiksha*, 11(2), 344–353. Retrieved from <https://ejournal.undiksha.ac.id/index.php/JEU/article/download/57698/28635/215301>
- Situmorang, R. K., Fahriany, F., & Nahartini, D. (2022). An Analysis of Teachers' Strategies on Students' Reading Comprehension in Online Learning at Junior High School. *Jurnal Pendidikan, Sains Sosial, Dan Agama*, 8(1), 213–222. <https://doi.org/10.53565/pssa.v8i1.444>
- Sugiyono. (2021). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: Alfabeta.
- Suhendi, S., Khoiruddin, H., Ihsan, M. N., & Nasir, T. M. (2025). Hasyim Asy ' ari ' s Dimensions of Multicultural Spiritual Leadership : Harmony in Education and Society in Indonesia. *Al-Hayat: Journal of Islamic Education*, 9(1), 1–27. <https://doi.org/https://doi.org/10.35723/ajie.v9i1.50>
- Sulistiyani, A. T., Wibawa, S., Krisnajaya, I. M., & Yuliani, K. (2019). the Neglected Education Contribution of the Islamic Boarding School (a Case Study of Kabupaten Hulu Sungai Selatan, South Kalimantan, Indonesia). *Jurnal Ilmiah Islam Futura*, 18(2), 250. <https://doi.org/10.22373/jiif.v18i2.3301>
- Supriatna, R. D., Fachriyah, N. V., & Nasir, T. M. (2023). Forging National Character in the Digital Age 4 . 0 : The Vital Role of Humans in Integrated Islamic Education. *Al-Ishlah: Jurnal Pendidikan*, 15(3), 3947–3955. <https://doi.org/10.35445/alishlah.v15i3.4515>
- Suryadarma, Y., & Haq, A. H. (2010). Moral Education According to Imam Al-Ghazali. *At-Ta'dib: Scientific Journal of Islamic Education Study Program*.



- Suyadi, S., & Aisyah, S. (2021). Students' Perception on Learning English For Law Faculty Students at University of Batanghari Jambi. *Jurnal Ilmiah Universitas Batanghari Jambi*, 21(3), 1151. <https://doi.org/10.33087/jiubj.v21i3.1719>
- Taadi, D., Raharjo, T. J., & Deliana, S. M. (2019). The effect of mind mapping based imindmap application on the creativity and concept understanding of students. *Innovative Journal of Curriculum and Educational Technology*, 8(1), 41–50. <https://doi.org/10.15294/IJCET.V8I1.31337>
- Taufiqurrahman, M. (2019). Persepsi Mahasiswa PAI dalam Pemanfaatan Teknologi Informasi Era Revolusi Industri 4.0 Pada Mata Kuliah Pembelajaran SKI di Madrasah. *Ta'allum: Jurnal Pendidikan Islam*, 7(2), 246–264. <https://doi.org/10.21274/taalum.2019.7.2.246-264>
- Warner, S., & Myers, K. (2010). The Creative Classroom: The Role of Space and Place toward Facilitating Creativity. *Technology Teacher*, 69.
- Waycott, Jenny & Bennett, Sue & Kennedy, Gregor & Dalgarno, Barney & Gray, K. (2010). Digital divides? Student and staff perceptions of information and communication technologies. *Computers & Education*, 54(4), 1202–1211.
- Willis, W. K., Williamson, V. M., Chuu, E., & Dabney, A. R. (2022). The relationship between a student's success in first-semester general chemistry and their mathematics fluency, profile, and performance on common questions. *Journal of Science Education and Technology*, 31(1), 1–15. <https://doi.org/https://doi.org/10.1007/s10956-021-09927-y>
- Zamzami, M. A. M., & Sarmini, S. (2024). Persepsi Kehidupan Bernegara Santri Pondok Pesantren Salafiyah (Studi Kasus pada Pondok Pesantren Al-Falah Ploso Mojo Kediri). *Jurnal Pendidikan Tambusai*, 8(1), 7869–7877. <https://doi.org/https://doi.org/10.31004/jptam.v8i1.13574>
- Zhou, T. (2024). The role of pre-service physical education teachers in physical education – A bibliometric and systematic review. *Heliyon*, e28702. <https://doi.org/https://doi.org/10.1016/j.heliyon.2024.e28702>