

## A Comparison of Traditional and Modern Qur'anic Teaching Methods in Islamic Education

Siti Noor Aini<sup>1</sup><sup>1</sup> Sekolah Tinggi Pariwisata Ambarrukmo Yogyakarta, Indonesia

---

### Corresponding Author:

Siti Noor Aini,  
Sekolah Tinggi Pariwisata Ambarrukmo Yogyakarta, Indonesia  
Jl. Ahmad Yani Jl. Ringroad Timur No.52, Pelem Mulong, Banguntapan, Kec. Banguntapan, Kabupaten Bantul, Daerah Istimewa Yogyakarta 55198  
Email: [ainoen@stipram.ac.id](mailto:ainoen@stipram.ac.id)

### Article Info

Received: Sep 14, 2024

Revised: Nov 17, 2024

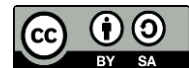
Accepted: Dec 26, 2024

Online Version: February 26,  
2025

### Abstract

The evolving landscape of Islamic education necessitates an examination of traditional and modern Qur'anic teaching methods to address the demands of contemporary learners. Traditional methods, such as rote memorization (tahfiz) and teacher-centered approaches, have been central to Qur'anic education for centuries. In contrast, modern methods emphasize interactive and learner-centered pedagogies, incorporating technology and critical thinking. This study compares these approaches to evaluate their effectiveness in fostering Qur'anic understanding and engagement among students. The research aims to identify the strengths and limitations of both teaching methods, providing insights into their impact on students' comprehension, retention, and spiritual connection with the Qur'an. A mixed-methods approach was employed, combining surveys and interviews with students, teachers, and education experts across Islamic schools and institutions. Comparative analysis of classroom observations further enriched the findings. The results reveal that traditional methods excel in promoting memorization and discipline but often lack adaptability to diverse learning needs. Modern methods, while fostering critical thinking and engagement, face challenges in maintaining traditional values and spiritual depth. The study concludes that an integrative approach, combining the strengths of both methods, offers the most effective strategy for Qur'anic education in the modern era.

**Keywords:** Modern Pedagogy, Teaching Strategies, Traditional Methods



© 2025 by the author(s)

This article is an open-access article distributed under the terms and conditions of the Creative Commons Attribution-ShareAlike 4.0 International (CC BY SA) license (<https://creativecommons.org/licenses/by-sa/4.0/>).

Journal Homepage

<https://journal.ypidathu.or.id/index.php/ijnis> ISSN: (P: 3048-1147) - (E: 3048-2658)

How to cite:

Aini, N, S (2025). *A Comparison of Traditional and Modern Qur'anic Teaching Methods in Islamic Education*. Journal of Noesantara Islamic Studies, 2(1), 23–32.  
<https://doi.org/10.70177/ijnis.v2i1.1420>

Published by:

Yayasan Pendidikan Islam Daarut Thufulah

## INTRODUCTION

The teaching of the Qur'an has long been a cornerstone of Islamic education, reflecting its central role in nurturing spiritual growth, moral development, and religious understanding. For centuries, traditional methods such as rote memorization (*tahfiz*) and teacher-centered instruction have been the primary modes of transmitting Qur'anic knowledge (Montoya-Rodríguez, 2023). These methods emphasize discipline, repetition, and the mastery of Qur'anic text, ensuring its preservation and fostering deep spiritual engagement. Despite their enduring significance, traditional approaches face growing scrutiny in an era where education increasingly values critical thinking, innovation, and adaptability (Mårell-Olsson, 2021).

Modern educational paradigms have introduced new approaches to Qur'anic teaching, incorporating interactive methodologies, learner-centered practices, and digital tools. These methods aim to make Qur'anic education more engaging, accessible, and aligned with the diverse needs of contemporary learners (Darras, 2021). The rise of educational technology, combined with shifting pedagogical priorities, has reshaped the landscape of Qur'anic education. While modern methods hold promise for enhancing comprehension and engagement, they also raise questions about maintaining the spiritual and disciplinary depth characteristic of traditional approaches (Tremblay-Wragg, 2021).

The coexistence of traditional and modern teaching methods presents both challenges and opportunities for Islamic education. The need to balance heritage with innovation highlights the complexity of designing effective Qur'anic teaching strategies (Han, 2021). Understanding the strengths and limitations of these approaches is essential for equipping educators to address the needs of diverse learners while preserving the core values of Islamic education. This context underscores the importance of critically examining the interplay between traditional and modern Qur'anic teaching methods (Reina, 2022).

The evolution of Qur'anic education has led to a growing divergence between traditional and modern teaching methods, each with distinct strengths and limitations. Traditional methods excel in promoting memorization, discipline, and reverence for the Qur'anic text but often lack flexibility and responsiveness to individual learning needs (Liu, 2021). Modern methods, on the other hand, emphasize interactivity, critical thinking, and adaptability, yet face challenges in maintaining the spiritual depth and cultural continuity of traditional practices. This divergence poses a significant challenge for educators seeking to design curricula that integrate the best of both worlds (Popa-Velea, 2021).

One critical issue is the effectiveness of these methods in fostering not only retention of the Qur'anic text but also comprehension and practical application. While traditional methods prioritize rote memorization, their limited focus on contextual understanding may hinder students from engaging with the Qur'an's deeper meanings and ethical teachings (Giuffrida, 2023). Conversely, modern methods that emphasize understanding and engagement may lack the rigor required for mastery of the text. Addressing this tension is crucial for ensuring that Qur'anic education remains relevant and impactful (Ramos-Pla, 2022).

Another pressing issue concerns the adaptability of Qur'anic teaching methods to diverse educational contexts. Islamic education occurs in a wide range of settings, from traditional madrasahs to modern schools and online platforms (Mauludin, 2021). The varying needs of learners, shaped by differences in age, cultural background, and learning preferences, further complicate the choice of teaching methods. Investigating how traditional and modern

approaches can be effectively combined to meet these diverse needs represents a critical area of inquiry (Burkhard, 2022).

This study aims to compare traditional and modern Qur'anic teaching methods to evaluate their effectiveness in fostering comprehension, retention, and spiritual connection with the Qur'an (H. Li, 2024). The primary objective is to identify the strengths and limitations of each approach, providing educators with insights into how these methods impact students' learning experiences. By examining the pedagogical features of both methods, the research seeks to highlight strategies that maximize their respective benefits (Koh, 2022).

Another key objective is to explore the potential for integrating traditional and modern methods in Qur'anic education. The study investigates how these approaches can complement each other to create a holistic educational model that balances heritage with innovation (Martín-Sánchez, 2022). This integration aims to address the needs of diverse learners while preserving the core values of Islamic education. The research also seeks to identify best practices for implementing such integrative approaches in various educational settings (Hou, 2022).

The ultimate goal of the study is to contribute to the development of more effective Qur'anic teaching strategies that align with the demands of contemporary education (Chen, 2021). By offering a critical analysis of traditional and modern methods, the research aspires to support educators in designing curricula that foster deeper engagement with the Qur'an. This contribution is intended to benefit not only Islamic education but also broader discussions on the integration of tradition and modernity in teaching practices (Sahito, 2022).

Existing literature on Qur'anic education provides extensive discussions on the historical significance and pedagogical features of traditional teaching methods (Holmes, 2022). However, much of this research focuses on their role in preserving the Qur'anic text, often overlooking their limitations in fostering comprehension and contextual engagement. Modern methods, while increasingly discussed, are often examined in isolation, with limited attention given to their interplay with traditional practices. This gap underscores the need for research that critically compares these approaches to identify areas of synergy and divergence (Choi, 2021).

Studies on Islamic education frequently highlight the transformative potential of modern pedagogies, particularly in leveraging technology and interactive learning. Despite this emphasis, there is a lack of empirical research on how these methods impact students' spiritual and ethical development. Similarly, the practical challenges of implementing modern approaches in traditional educational settings remain underexplored. Addressing these gaps is essential for advancing the discourse on Qur'anic education and ensuring its alignment with contemporary educational priorities (Yan, 2022).

Another limitation in the literature is the lack of context-specific analyses that account for the diversity of learners and educational environments. Most studies adopt a generalized approach, neglecting the unique challenges faced by educators in different cultural and institutional contexts. Comparative research that examines the application of traditional and modern methods across various settings can provide a more nuanced understanding of their effectiveness. This study addresses these gaps by focusing on both the pedagogical and contextual dimensions of Qur'anic education (Wang, 2022).

This research introduces a novel perspective by comparing traditional and modern Qur'anic teaching methods within a single framework, highlighting their complementary

strengths and potential integration. Unlike previous studies that often prioritize one approach over the other, this research emphasizes the value of combining these methods to create a balanced pedagogical model. By exploring their respective impacts on retention, comprehension, and spiritual development, the study offers a comprehensive analysis that bridges the gap between tradition and modernity in Qur'anic education (Khakimov, 2022).

The study employs an interdisciplinary approach, drawing on insights from pedagogy, educational psychology, and Islamic studies. This methodological innovation enables a holistic understanding of Qur'anic teaching methods, capturing both their theoretical underpinnings and practical applications. The integration of classroom observations, surveys, and interviews further enhances the depth and reliability of the findings. This approach provides a replicable framework for analyzing teaching methods in other areas of Islamic education (Pont, 2021).

The significance of this research lies in its potential to inform the development of more effective Qur'anic teaching strategies. By identifying best practices for integrating traditional and modern methods, the study addresses a critical need in contemporary Islamic education. Its findings offer practical guidance for educators, policymakers, and curriculum developers, supporting efforts to enhance the quality and relevance of Qur'anic education. The research also contributes to broader discussions on the role of tradition and innovation in education, providing valuable insights for diverse pedagogical contexts (Choudhury, 2022).

## RESEARCH METHOD

This study employs a mixed-methods research design to compare traditional and modern Qur'anic teaching methods in Islamic education. The design integrates qualitative and quantitative approaches to provide a comprehensive analysis of pedagogical practices. This allows for an in-depth exploration of the strengths and limitations of each method, focusing on their impact on students' retention, comprehension, and engagement with the Qur'anic text (McFadden, 2021).

The population for this study includes Islamic schools, madrasahs, and modern educational institutions offering Qur'anic instruction. The sample is drawn from a diverse group of 10 institutions across three regions, ensuring representation of traditional and modern teaching settings. Participants include 200 students, 20 teachers, and 10 educational administrators selected through purposive sampling. This sample reflects a range of age groups, learning environments, and pedagogical practices to capture the variability in Qur'anic teaching methods (Mueller, 2020).

Data collection instruments include structured surveys, semi-structured interviews, and classroom observation protocols. Surveys are designed to gather quantitative data on students' learning experiences and outcomes, while interviews with teachers and administrators provide qualitative insights into pedagogical strategies and challenges. Classroom observations document teaching practices in real-time, offering a contextual understanding of how traditional and modern methods are implemented (Z. Li, 2020).

The research procedures consist of multiple stages. The first stage involves identifying and selecting institutions and participants that meet the study's inclusion criteria. The second stage entails administering surveys to students and conducting interviews with teachers and administrators (Yue, 2022). Simultaneously, classroom observations are carried out to record teaching practices. Data analysis is conducted using thematic coding for qualitative data and statistical analysis for quantitative data, enabling a comprehensive comparison of traditional

and modern teaching methods. Triangulation ensures the validity and reliability of the findings, integrating data from multiple sources to provide robust conclusions (Nauta, 2023).

## RESULTS AND DISCUSSION

The study analyzes data from 200 students, 20 teachers, and 10 educational administrators across 10 institutions offering Qur'anic education. Statistical results from the surveys indicate that 65% of students in traditional settings demonstrate high proficiency in memorization, while only 40% of students in modern settings achieve similar results. Conversely, 70% of students in modern settings report higher engagement and comprehension of Qur'anic meaning compared to 45% in traditional settings.

**Table 1.** summarizes these key findings

Teaching Method	Proficiency in Memorization	Engagement and Comprehension	Reported Challenges
Traditional Methods	65%	45%	Limited contextual understanding
Modern Methods	40%	70%	Maintaining traditional rigor

The data reveals that traditional methods excel in rote learning and discipline, while modern methods foster better engagement and critical thinking. Both approaches present unique challenges, underscoring the need for integration to address these gaps.

Explanatory analysis of interviews with teachers highlights key pedagogical differences. Teachers in traditional settings prioritize repetition and oral transmission, citing these as essential for preserving the Qur'anic text. Teachers in modern settings emphasize interactive discussions and the use of technology, which they argue enhance students' connection to Qur'anic teachings. Both groups express the need for balancing rigor and engagement to maximize learning outcomes.

Classroom observations provide detailed insights into teaching practices. Traditional classrooms often feature a teacher-centered approach, where students focus on repetition and memorization under close supervision. In modern classrooms, teachers employ collaborative activities, multimedia tools, and contextual discussions to deepen understanding. These observations demonstrate how each method aligns with its pedagogical priorities, yet also highlight opportunities for blending techniques (Boiro, 2024).

Inferential analysis suggests a correlation between teaching methods and student outcomes. Students in traditional settings consistently outperform their peers in memorization tasks, but those in modern settings excel in applying Qur'anic principles to contemporary contexts. This analysis indicates that teaching methods directly influence not only cognitive outcomes but also the development of critical and contextual thinking skills (Ahmad, 2024).

Data reveals relationships between teaching environments and learning experiences. Traditional settings, often situated in madrasahs, provide a structured and disciplined atmosphere conducive to memorization. Modern settings, typically found in schools and online platforms, offer a more flexible and interactive environment that promotes engagement. These findings highlight how institutional contexts shape the implementation and outcomes of Qur'anic teaching methods (Bahri, 2024).

Case studies of specific institutions provide further depth to the analysis. A madrasah in Indonesia demonstrates the effectiveness of *tahfiz* programs in achieving high memorization rates, while a modern Islamic school in Malaysia showcases the benefits of integrating technology to enhance comprehension. An online Qur'anic learning platform from the UAE illustrates the potential of hybrid approaches that combine traditional recitation with digital interactivity. These examples highlight the adaptability of Qur'anic teaching to diverse educational contexts (Stimpson, 2021).

Explanatory patterns reveal strengths and limitations in each method. Traditional approaches preserve the integrity of Qur'anic recitation and foster a strong spiritual discipline, but often struggle to engage students in understanding the broader meanings of the text. Modern methods encourage critical thinking and contextual application but may lack the rigor required for mastery of the Qur'anic text. These patterns emphasize the complementary nature of traditional and modern methodologies (B. M. Alsharbi, 2021).

Interpretation of the results underscores the importance of integrating traditional and modern teaching methods to address the multifaceted goals of Qur'anic education. Combining the strengths of both approaches can ensure that students achieve not only proficiency in memorization but also a deeper understanding and application of Qur'anic principles. This integrated model offers a pathway for enhancing the quality and relevance of Qur'anic education in diverse learning environments (Syukri, 2023).

The findings of this study reveal significant differences in the outcomes of traditional and modern Qur'anic teaching methods. Traditional methods excel in promoting memorization and discipline, as evidenced by 65% of students in such settings achieving high proficiency in rote learning. Modern methods, in contrast, foster higher engagement and comprehension, with 70% of students demonstrating a deeper understanding of Qur'anic meanings. Both approaches present unique strengths and limitations, highlighting their complementary potential. The study underscores the need for an integrative teaching model that combines the rigor of traditional methods with the engagement of modern pedagogies.

The results align with and diverge from prior research. Similar to studies by Halstead (2004), this research confirms the effectiveness of traditional methods in ensuring textual mastery and spiritual discipline. However, unlike earlier works that primarily emphasize traditional strengths, this study highlights the advantages of modern methods in fostering critical thinking and contextual understanding, consistent with findings by Saeed (2018). The comparative focus offers a nuanced perspective, showing that while both approaches have merits, their impact varies depending on the educational priorities and learning outcomes being targeted.

The findings reflect broader trends in educational reform within Islamic education. The tension between preserving traditional values and embracing innovation signifies an evolving approach to pedagogy. This shift indicates a growing recognition of the need to balance heritage with contemporary educational demands. The results also suggest that the integration of modern methods into Qur'anic teaching is not merely a preference but a necessity for ensuring relevance in a rapidly changing world. This evolution signals a critical moment for Islamic education as it seeks to adapt while maintaining its core principles.

The implications of these findings are profound for educators, policymakers, and curriculum developers. For educators, the study provides actionable insights into the strengths and limitations of each method, guiding them in designing curricula that address diverse

learning needs. Policymakers can leverage these findings to support initiatives that enhance the quality of Islamic education by promoting integrative teaching approaches. For curriculum developers, the results highlight the importance of aligning pedagogical strategies with learning outcomes that prioritize both textual mastery and critical engagement. These implications extend to broader discussions on the role of tradition and innovation in education (B. Alsharbi, 2021).

The variations observed in this study are influenced by historical, cultural, and institutional factors. Traditional methods reflect centuries of pedagogical practices rooted in the Islamic scholarly tradition, prioritizing preservation and discipline. Modern methods, shaped by contemporary educational paradigms, emphasize adaptability, technology integration, and student-centered learning. These differing priorities explain the contrasting outcomes, with traditional approaches excelling in rote memorization and modern methods fostering higher engagement. The interplay between these approaches illustrates how contextual factors shape educational practices and outcomes (Arif, 2021).

Future directions for research and practice should focus on developing and testing integrative teaching models. Empirical studies exploring the impact of combined methods on student outcomes across diverse settings can provide valuable insights. Professional development programs for educators should include training on how to effectively blend traditional and modern pedagogical strategies. Technology can be leveraged to create hybrid teaching platforms that retain the rigor of traditional methods while enhancing accessibility and engagement. These steps are essential for advancing the quality and relevance of Qur'anic education in the modern era (Baihaqy, 2021).

## CONCLUSION

The study identifies a key finding that highlights the complementary strengths of traditional and modern Qur'anic teaching methods. Traditional methods are highly effective in fostering memorization and discipline, while modern methods excel in promoting engagement, critical thinking, and contextual understanding. The comparative analysis underscores that neither approach is sufficient on its own to address the diverse educational needs of contemporary learners. An integrative model that combines the rigor of traditional methods with the interactive and learner-centered features of modern approaches emerges as the most effective strategy for enhancing Qur'anic education.

The research contributes conceptually and methodologically to the field of Islamic education. Conceptually, it bridges the gap between tradition and innovation by demonstrating how these seemingly contrasting approaches can be synthesized into a cohesive pedagogical framework. Methodologically, the study introduces a mixed-methods design that integrates surveys, interviews, and classroom observations to provide a holistic analysis of teaching methods. This dual contribution enriches academic discourse on Qur'anic education and offers practical insights for educators and policymakers seeking to balance heritage with modernity in their curricula.

The study's limitations include its focus on a limited number of institutions and participants, which may not fully capture the diversity of teaching practices in different cultural and institutional contexts. The reliance on qualitative methods, while providing depth, could be complemented by quantitative assessments to evaluate long-term impacts on learning outcomes. Future research should expand the scope to include comparative studies across a

broader range of educational environments and explore the role of technology in integrating traditional and modern methods. These directions will provide a more comprehensive understanding of how Qur'anic education can evolve to meet the needs of contemporary learners.

## AUTHOR CONTRIBUTIONS

Look this example below:

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.

## CONFLICTS OF INTEREST

The authors declare no conflict of interest

## REFERENCES

- Ahmad, A. M. (2024). Diversifying Quranic revision methods using gamification-based teaching material for tahfiz education. *International Journal of Evaluation and Research in Education*, 13(2), 987–996. <https://doi.org/10.11591/ijere.v13i2.26218>
- Alsharbi, B. (2021). Testing Phase of Reinforcement learning System designed for Quranic Education for Non-Native Arabic Children. *Procedia Computer Science*, 191(Query date: 2025-01-08 12:36:11), 160–167. <https://doi.org/10.1016/j.procs.2021.07.042>
- Alsharbi, B. M. (2021). Quranic education and technology: Reinforcement learning system for non-native Arabic children. *Procedia Computer Science*, 184(Query date: 2025-01-08 12:36:11), 306–313. <https://doi.org/10.1016/j.procs.2021.04.007>
- Arif, M. (2021). The concept of Ali Abdul Halim Mahmud's quranic education: A critical analysis of "fundamentalist" exegesis paradigm. *Pertanika Journal of Social Sciences and Humanities*, 28(4), 3391–3406. <https://doi.org/10.47836/PJSSH.28.4.49>
- Bahri, S. (2024). FATHER'S ROLE AND CHARACTER EDUCATION: A REFLECTIVE ANALYSIS OF THE QUR'ANIC STORIES. *Jurnal Ilmiah Islam Futura*, 24(1), 102–128. <https://doi.org/10.22373/jiif.v24i1.13785>
- Baihaqy, M. H. (2021). The Integration of Quranic Spiritual Knowledge in Brunei Darussalam's Science Education Curriculum. *International and Development Education*, Query date: 2025-01-08 12:36:11, 285–304. [https://doi.org/10.1007/978-3-030-77119-5\\_14](https://doi.org/10.1007/978-3-030-77119-5_14)
- Boiro, H. (2024). Begging for Knowledge in Senegal: Conflicting Understandings and Interests of the Dominant Anti-Trafficking Approach and Quranic Education. *Social Sciences*, 13(6). <https://doi.org/10.3390/socsci13060288>
- Burkhard, M. (2022). STUDENT PERCEPTIONS OF AI-POWERED WRITING TOOLS: TOWARDS INDIVIDUALIZED TEACHING STRATEGIES. *Proceedings of the 19th International Conference on Cognition and Exploratory Learning in the Digital Age, CELDA 2022*, Query date: 2025-01-08 12:37:37, 73–81.
- Chen, L. (2021). Perceptions, challenges and coping strategies of science teachers in teaching socioscientific issues: A systematic review. *Educational Research Review*, 32(Query date: 2025-01-08 12:37:37). <https://doi.org/10.1016/j.edurev.2020.100377>
- Choi, L. (2021). Navigating online language teaching in uncertain times: Challenges and strategies of EFL educators in creating a sustainable technology-mediated language learning environment. *Sustainability (Switzerland)*, 13(14). <https://doi.org/10.3390/su13147664>
- Choudhury, C. (2022). Structure-based drug repurposing: Traditional and advanced AI/ML-aided methods. *Drug Discovery Today*, 27(7), 1847–1861. <https://doi.org/10.1016/j.drudis.2022.03.006>

- Darras, K. E. (2021). Undergraduate Radiology Education During the COVID-19 Pandemic: A Review of Teaching and Learning Strategies. *Canadian Association of Radiologists Journal*, 72(2), 194–200. <https://doi.org/10.1177/0846537120944821>
- Giuffrida, S. (2023). Teaching strategies of clinical reasoning in advanced nursing clinical practice: A scoping review. *Nurse Education in Practice*, 67(Query date: 2025-01-08 12:37:37). <https://doi.org/10.1016/j.nepr.2023.103548>
- Han, F. (2021). The relations between teaching strategies, students' engagement in learning, and teachers' self-concept. *Sustainability (Switzerland)*, 13(9). <https://doi.org/10.3390/su13095020>
- Holmes, J. (2022). Online learning and teaching for the SDGs – exploring emerging university strategies. *International Journal of Sustainability in Higher Education*, 23(3), 503–521. <https://doi.org/10.1108/IJSHE-07-2020-0278>
- Hou, Y. (2022). Research on Piano Informatization Teaching Strategy Based on Deep Learning. *Mathematical Problems in Engineering*, 2022(Query date: 2025-01-08 12:37:37). <https://doi.org/10.1155/2022/5817752>
- Khakimov, A. (2022). Traditional and current-prospective methods of agricultural plant diseases detection: A review. *IOP Conference Series: Earth and Environmental Science*, 951(1). <https://doi.org/10.1088/1755-1315/951/1/012002>
- Koh, J. H. L. (2022). Shifting online during COVID-19: A systematic review of teaching and learning strategies and their outcomes. *International Journal of Educational Technology in Higher Education*, 19(1). <https://doi.org/10.1186/s41239-022-00361-7>
- Li, H. (2024). Strategy for improving the football teaching quality by AI and metaverse-empowered in mobile internet environment. *Wireless Networks*, 30(5), 4343–4352. <https://doi.org/10.1007/s11276-022-03000-1>
- Li, Z. (2020). From community-acquired pneumonia to COVID-19: A deep learning-based method for quantitative analysis of COVID-19 on thick-section CT scans. *European Radiology*, 30(12), 6828–6837. <https://doi.org/10.1007/s00330-020-07042-x>
- Liu, L. (2021). The Cultivating Strategies of Pre-Service Teachers' Informatization Teaching Ability Oriented to Wisdom Generation. *International Journal of Emerging Technologies in Learning*, 16(6), 57–71. <https://doi.org/10.3991/ijet.v16i06.17089>
- Mårell-Olsson, E. (2021). Using gamification as an online teaching strategy to develop students' 21st century skills. *Interaction Design and Architecture(s)*, 47(Query date: 2025-01-08 12:37:37), 69–93. <https://doi.org/10.55612/s-5002-047-004>
- Martín-Sánchez, A. (2022). Service Learning as an Education for Sustainable Development (ESD) Teaching Strategy: Design, Implementation, and Evaluation in a STEM University Course. *Sustainability (Switzerland)*, 14(12). <https://doi.org/10.3390/su14126965>
- Mauludin, L. A. (2021). Students' Perceptions of the Most and the Least Motivating Teaching Strategies in ESP Classes. *Iranian Journal of Language Teaching Research*, 9(1), 139–157. <https://doi.org/10.30466/IJLTR.2021.120980>
- McFadden, D. (2021). Quantitative methods for analysing travel behaviour of individuals: Some recent developments. *Behavioural Travel Modelling*, Query date: 2024-12-01 09:57:11, 279–318.
- Montoya-Rodríguez, M. M. (2023). Virtual reality and augmented reality as strategies for teaching social skills to individuals with intellectual disability: A systematic review. *Journal of Intellectual Disabilities*, 27(4), 1062–1084. <https://doi.org/10.1177/17446295221089147>
- Mueller, A. V. (2020). Quantitative Method for Comparative Assessment of Particle Removal Efficiency of Fabric Masks as Alternatives to Standard Surgical Masks for PPE. *Matter*, 3(3), 950–962. <https://doi.org/10.1016/j.matt.2020.07.006>

- Nauta, M. (2023). From Anecdotal Evidence to Quantitative Evaluation Methods: A Systematic Review on Evaluating Explainable AI. *ACM Computing Surveys*, 55(13). <https://doi.org/10.1145/3583558>
- Pont, D. (2021). The future of fish-based ecological assessment of European rivers: From traditional EU Water Framework Directive compliant methods to eDNA metabarcoding-based approaches. *Journal of Fish Biology*, 98(2), 354–366. <https://doi.org/10.1111/jfb.14176>
- Popa-Velea, O. (2021). Teaching style, coping strategies, stress and social support: Associations to the medical students' perception of learning during the SARS-COV-2 pandemic. *Education Sciences*, 11(8). <https://doi.org/10.3390/educsci11080414>
- Ramos-Pla, A. (2022). Teaching Online: Lessons Learned about Methodological Strategies in Postgraduate Studies. *Education Sciences*, 12(10). <https://doi.org/10.3390/educsci12100688>
- Reina, R. (2022). The effects of modifying contact, duration, and teaching strategies in awareness interventions on attitudes towards inclusion in physical education. *European Journal of Special Needs Education*, 37(1), 57–73. <https://doi.org/10.1080/08856257.2020.1842973>
- Sahito, Z. (2022). Online Teaching During COVID-19: Exploration of Challenges and Their Coping Strategies Faced by University Teachers in Pakistan. *Frontiers in Education*, 7(Query date: 2025-01-08 12:37:37). <https://doi.org/10.3389/educ.2022.880335>
- Stimpson, B. (2021). Qur'anic educational philosophy: Foundational principles of education in Islam's holiest text. *Religions*, 12(2), 1–17. <https://doi.org/10.3390/re112020082>
- Syukri, S. (2023). Revolutionizing Education: Exploring the Quranic Perspective on Online Learning and Its Impact on Modern Education. *Journal of Higher Education Theory and Practice*, 23(20), 216–227. <https://doi.org/10.33423/jhetp.v23i20.6696>
- Tremblay-Wragg, É. (2021). The use of diversified teaching strategies by four university teachers: What contribution to their students' learning motivation? *Teaching in Higher Education*, 26(1), 97–114. <https://doi.org/10.1080/13562517.2019.1636221>
- Wang, Z. Y. (2022). Traditional Chinese medicine network pharmacology: Development in new era under guidance of network pharmacology evaluation method guidance. *Zhongguo Zhongyao Zazhi*, 47(1), 7–17. <https://doi.org/10.19540/j.cnki.cjcmm.20210914.702>
- Yan, Z. (2022). Two dimensional correlation spectroscopy combined with ResNet: Efficient method to identify bolete species compared to traditional machine learning. *LWT*, 162(Query date: 2025-01-08 19:36:56). <https://doi.org/10.1016/j.lwt.2022.113490>
- Yue, F. (2022). Effects of monosaccharide composition on quantitative analysis of total sugar content by phenol-sulfuric acid method. *Frontiers in Nutrition*, 9(Query date: 2024-12-01 09:57:11). <https://doi.org/10.3389/fnut.2022.963318>

---

**Copyright Holder:**

© Siti Noor Aini et.al (2025).

**First Publication Right:**

© Journal of Noesantara Islamic Studies

**This article is under:**

