ARTIFICIAL INTELLIGENCE IN ISLAMIC INCLUSIVE EDUCATION: A SYSTEMATIC LITERATURE REVIEW OF PEDAGOGICAL TRANSFORMATIONS, ACCESSIBILITY, AND EQUITY OUTCOMES

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ABSTRAK

Penelitian ini bertujuan untuk menganalisis bagaimana Artificial Intelligence (AI) mentransformasi praktik pedagogis, aksesibilitas, dan equity outcomes dalam pendidikan Islam inklusif. Penelitian ini menggunakan metode systematic literature review terhadap artikel empiris terindeks Scopus tahun 2021–2025. Pencarian dilakukan menggunakan kata kunci "Artificial Intelligence" dan "Inclusive Education" pada bidang Social Sciences serta Arts and Humanities. Dari 385 artikel awal, proses seleksi menghasilkan 11 artikel yang relevan untuk dianalisis secara tematik. Hasil penelitian menunjukkan bahwa AI mendukung pendidikan Islam inklusif melalui pembelajaran adaptif, personalisasi konten, chatbot, text-to-speech, speech-to-text, analitik pembelajaran, dan Generative AI. Teknologi ini memperluas akses dan partisipasi peserta didik dengan hambatan kognitif, sensorik, fisik, bahasa, sosial-emosional, dan geografis. Namun, implementasinya menghadapi tantangan privasi data, bias algoritmik, validitas konten keislaman, keterbatasan infrastruktur, rendahnya literasi AI guru, dan risiko melemahnya interaksi spiritual. Kontribusi penelitian ini adalah menawarkan sintesis konseptual tentang AI sebagai instrumen pendukung guru sebagai murabbi dalam membangun pembelajaran Islam yang inklusif, adil, humanis, dan berorientasi pada nilai 'adl, rahmah, amanah, serta karāmah insāniyyah.

Kata kunci: Artificial Intelligence; Pendidikan Islam; Transformasi; Aksesibilitas; Inklusif

ABSTRACT

This research aims to analyze how Artificial Intelligence (AI) transforms pedagogical practices, accessibility, and equity outcomes in inclusive Islamic education. This study uses the systematic literature review method of Scopus indexed empirical articles in 2021–2025. The search was conducted using the keywords "Artificial Intelligence" and "Inclusive Education" in the fields of Social Sciences and Arts and Humanities. Out of the initial 385 articles, the selection process resulted in 11 relevant articles to be analyzed thematically. The results show that AI supports inclusive Islamic education through adaptive learning, content personalization, chatbots, text-to-speech, speech-to-text, learning analytics, and Generative AI. This technology expands the access and participation of learners with cognitive, sensory, physical, linguistic, social-emotional, and geographical barriers.

However, its implementation faces the challenges of data privacy, algorithmic bias, the validity of Islamic content, limited infrastructure, low AI literacy of teachers, and the risk of weakening spiritual interactions. The contribution of this research is to offer a conceptual synthesis of AI as an instrument to support teachers as murabbi in building Islamic learning that is inclusive, fair, humanist, and oriented towards the values of 'adl, rahmah, amanah, and karāmah insāniyyah.
Keywords: *Artificial Intelligence; Islamic Education; Transformation; Accessibility; Inclusive*

INTRODUCTION

Inclusive education is still an urgent global agenda because students with disabilities and diverse needs have not yet gained equal access, participation, and learning outcomes. UNICEF estimates that nearly 240 million children in the world live with disabilities. As many as 49% of children never go to school and 42% of children do not have basic reading and numeracy skills compared to children without disabilities (Unicef, 2021). UNESCO also reports that children with sensory, physical, or intellectual difficulties will have difficulty completing basic education. Meanwhile, about 40% of countries have not provided teacher training on inclusion (Unesco, 2023). This data shows that the main problem with inclusive education is not only access to schools, but also the quality of participation, pedagogical support, learning accessibility, and equity outcomes.

In the context of Islamic education, the urgency is increasingly complex because learning not only targets cognitive achievement, but also the formation of morals, spirituality, manners, and meaningful participation of all students in religious experiences (Inayati et al., 2025)(Maksum et al., 2020)(Nirwana AN et al., 2025). Students with visual, auditory, cognitive, language, social-emotional, or geographical limitations often face difficulties in accessing materials from the Qur'an, hadith, fiqh, creed, morals, and Islamic history if learning is still designed in a uniform manner (Apriantoro & Hamidah, 2026). Inclusive Islamic education requires a pedagogical approach that is able to adjust content, methods, media, assessments, and learning support according to the individual needs of students without ignoring Islamic values such as justice (‘adl), compassion (rahmah), trust, and respect for human dignity (karamah insaniyyah). Artificial Intelligence (AI) offers a great opportunity to answer these challenges (Prayitno et al., 2025).

State of the art shows that AI has been extensively researched in general education, higher education, and health education, especially related to personalization, assessment, AI literacy, and ethics (Gordon et al., 2024). Studies that specifically link AI to inclusive Islamic education are still limited. Most AI studies have not in-depth addressed how AI can be used to support accessible, culturally sensitive, theologically valid, and equitable religious learning for learners with special needs (Simoni et al., 2025). The literature also emphasizes that AI integration requires ethical frameworks, teacher readiness, data governance, bias mitigation, and learner-centered design (Ahsan, 2025).

The research gap of this article lies in the absence of a systematic synthesis that specifically maps how AI transforms pedagogy, accessibility, and equity outcomes in inclusive Islamic education. Previous studies have tended to discuss AI in general education, higher education, or health education, but have not sufficiently explained the integration of AI in an Islamic learning environment that demands a balance between technological innovation, inclusion, religious values, and social justice. This systematic literature review is important to identify the direction of research development, pedagogical opportunities, the impact on the fairness of learning outcomes, as well as ethical, pedagogical, and technological challenges in the implementation of AI in inclusive Islamic education.

Based on this background, this research is directed to answer the following three problem formulations: 1) How does artificial intelligence transform pedagogical practices in an inclusive Islamic learning environment?; 2) What is the impact of artificial intelligence on equity outcomes in inclusive Islamic education?; 3) What are the ethical, pedagogical, and technological challenges in the implementation of artificial intelligence in inclusive Islamic education?

METHOD

This study uses the systematic literature review (SLR) method to examine the implementation of Artificial Intelligence in inclusive education, especially related to pedagogical transformation, accessibility, and equity outcomes in the context of inclusive Islamic education (Ambon et al., 2025). The database used is Scopus with Boolean search: (TITLE-ABS-KEY ("Artificial Intelligence") AND TITLE-ABS-

KEY ("Inclusive Education")) AND PUBYEAR > 2020 AND PUBYEAR < 2026 AND (LIMIT-TO (SUBJAREA , "SOCI") OR LIMIT-TO (SUBJAREA , "ARTS")) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (OA , "all")). The search was then limited to English, open access, type of research article documents, and the subject area of Social Sciences and Arts and Humanities.

From the initial search, 385 articles were found. After applying the inclusion criteria, the number of articles was filtered to 43. A screening process was carried out on the title, abstract, and relevance of the substance of the article with the focus of the study, namely Artificial Intelligence, inclusive education, accessibility, pedagogy, and fairness of learning outcomes. The final results of the selection process resulted in 11 articles that were considered the most relevant to be analyzed in depth. Data from the selected articles were analyzed using thematic synthesis to identify key patterns related to pedagogical transformation, the impact of AI on equity outcomes, as well as ethical, pedagogical, and technological challenges in the implementation of AI in inclusive Islamic education.

DISCUSSION

Table 1 summarizes key metadata that includes the author's identity, research title, year of publication, journal name, geographic coverage, and focus of the subject or level of education targeted by the research.

Table 1. Main data of the selected articles

Authors	Title	Year	Journal	Country	Subject or Educational Level
Joseph A. Villarama	Utilizing Interactive Artificial Intelligence in English Language and Science in Select Southeast Asian Classrooms	2025	Jurnal Ilmiah Ilmu Terapan Universitas Jambi	Filipina, Indonesia, Thailand, USA	English and Science / Elementary to Middle School (K-12)

George Alex Stelea, Dan Robu, Florin Sandu	AccessiLearnAI: An Accessibility-First, AI-Powered E-Learning Platform for Inclusive Education	2025	Education Sciences	Romania	Inclusive Education / Academic Education (Higher Education)
Kok Weng Ma	A Model for the Adoption of Artificial Intelligence in Inclusive Education: An Exploratory Study of Key Factors and Expert Insights	2025	Journal of Information Technology Education: Research	Malaysia, Arab Saudi	Students with Special Needs / Higher Education (University)
Abdallah Qusef	Leveraging Artificial Intelligence to Identify Students with Learning Challenges	2025	International Journal of Learning, Teaching and Educational Research	Yordania, UAE	Learning Difficulties (SWLD) / Elementary and Secondary Schools
Sofía Villatoro Moral, Francisca Moreno-Tallón	Artificial Intelligence and Inclusive Education: Technological Solutions for Accessible Teaching. A Systematic Review	2024	Digital Education Review	Spanyol	Inclusive Education / Various Levels (K-12 to Higher Education)
Mohd Faisal	AI for Inclusive Art Education for Differently Abled Learners	2025	ShodhKosh: Journal of Visual and Performing Arts	India	Arts Education / Learners with Disabilities
Bessong Emmanuel Bessong	Leveraging Artificial Intelligence to Enhance	2025	Journal of Intellectual Disability - Diagnosis	Nigeria	Intellectual/Higher Education

	Inclusive Teaching for Students with Intellectual Disabilities in Nigerian Universities		and Treatment		Disabilities (University)
Charles Maimela, Palesa Mbonde	Artificial Intelligence in South African Universities: Curriculum Transformation and Decolonisation—Aid or Obstacle?	2025	Frontiers in Sociology	Afrika Selatan	Curriculum Transformation and Decolonization/Higher Education
Nanang Husin	Policy Perspective on Proposed Framework of NLP AI to Bridge the Inclusive Support in Higher Education in Indonesia and Malaysia	2025	International Journal of Information and Education Technology	Indonesia, Malaysia	Inclusive Support/Higher Education
Sabit Rahim	Harnessing Generative AI: Reviewing Applications, Challenges, and Solutions for Out-of-School Children in Developing Regions	2025	Sustainable Futures	Pakistan	Generative AI / School Dropouts
Spyridon Tzimiris	Post-pandemic Pedagogy: Emergency Remote Teaching Impact on Students with Functional Diversity	2023	Education and Information Technologies	Yunani	Emergency Distance Teaching (ERT) / K-12 (Students with Functional Diversity)

Transformation of Pedagogical Practices in an Inclusive Islamic Learning Environment

The evolution of inclusive pedagogy through AI shows a significant shift from reactive methods to proactive systemic design. The experience of emergency remote teaching (ERT) during the pandemic revealed that without the right technological support, students with functional diversity are often socially and academically isolated (Tzimiris et al., 2023). Post-pandemic learning now demands the integration of AI that not only serves as an additional tool, but as a key foundation in creating a "accessibility-first" digital ecosystem (*accessibility-first*) (Stelea et al., 2025). Through frameworks such as the SAMR (Substitution, Augmentation, Modification, and Redefinition) model, teachers can redesign lessons to be more interactive and inclusive, ensuring technology reinforces human engagement rather than replacing it (Villarama et al., 2025)(Husin et al., 2025). This transformation allows for the creation of new standards where inclusive Islamic education program materials can be accessed equally through AI support that is aligned with institutional policies.

AI transforms pedagogy through large-scale personalization of learning, with adaptive systems that adjust instructional content, pace, and format based on students' real-time performance, especially for those with intellectual barriers or specific learning difficulties (Qusef et al., 2025)(Bessong et al., 2025). The use of AI for early identification, such as in cases of dyslexia or dyscalculia, allows for faster and more accurate diagnostic interventions than traditional methods (Qusef et al., 2025)(Bessong et al., 2025). For children in remote areas or those who have dropped out of school, Generative AI (GAI) acts as a virtual tutor that provides contextually relevant learning materials, language, and personal interests (Rahim et al., 2025). The integration of these adaptive algorithms ensures that each student receives pedagogical "scaffolding" that corresponds to their respective cognitive level (Faisal et al., 2025)(Rahim et al., 2025).

Despite its great transformative potential, the literature emphasizes that the success of AI-based pedagogy is highly dependent on policy readiness and systemic justice. There is a real risk of "digital colonialism" if AI is trained only on Western datasets, so there is a strong push to develop culturally sensitive, locally-based AI

models (such as Afrocentric or Asiacentric models) to support curriculum decolonization (Maimela & Mbonde, 2025). In developing countries such as Indonesia, Malaysia, and Nigeria, the main challenge remains in the gap between formal policies and practical implementation on the ground (Husin et al., 2025). The success of AI pedagogical transformation requires the collaboration of technology developers, educators, and policymakers to ensure equitable access, data protection, and the reduction of algorithmic bias in inclusive education (Ma et al., 2025)(Bessong et al., 2025). AI offers a future where inclusive education becomes more responsive, equitable, and transformative for all types of learners (Moral & Moreno-Tallón, 2025).

The Impact of Artificial Intelligence on Equity Outcomes in Inclusive Islamic Education

AI supports equity outcomes in inclusive education by expanding access for marginalized learners through technologies such as image-to-audio conversion, gesture recognition, and speech-to-text, so that students with physical, sensory, and cognitive disabilities can fully participate in academic and creative activities (Faisal et al., 2025). In areas with geographical and infrastructural limitations, such as remote areas of Pakistan, Generative AI (GAI) plays a crucial role in reducing disparities in learning outcomes by providing contextually and linguistically relevant materials for out-of-school children, thereby aligning educational opportunities between rural and urban areas (Rahim et al., 2025). The effectiveness of machine learning and natural language processing (NLP) algorithms in the early identification of learning difficulties allows for timely and accurate interventions, which significantly improves the fairness of outcomes for students who are often late in receiving support in traditional systems (Qusef et al., 2025).

The success of AI-based pedagogy depends on policy readiness and systemic justice, as the predominantly use of Western datasets risks creating "digital colonialism", so culturally sensitive, locally-based AI models are needed to support curriculum decolonization (Maimela & Mbonde, 2025). The use of frameworks such as the Digital Inclusion Model and the accessibility-first approach ensures that the design of digital systems not only meets minimal technical compliance, but

proactively facilitates student autonomy and diversity of perspectives (Stelea et al., 2025)(Husin et al., 2025). Without algorithmic bias mitigation and transparency in AI decision-making, there is a real risk of systemic discrimination that can distort feedback and assessment for students from marginalized backgrounds (Moral & Moreno-Tallón, 2025)(Faisal et al., 2025).

In Nigeria, the current low utilization of AI by lecturers highlights the gap between formal inclusion mandates and the reality of a field that lacks professional training and structured institutional strategies (Bessong et al., 2025) (Ma et al., 2025)(Husin et al., 2025). Research shows that social support from teachers, peers, and family is a key factor that increases the perception of the usefulness of AI among students with special needs, which in turn drives their intention to adopt such assistive technologies (Ma et al., 2025). AI positively impacts equity outcomes when it is used not just to digitize learning, but to ensure that every learner has equitable access, appropriate support, opportunities to participate, and equal opportunities to achieve academic, social, and spiritual success in inclusive Islamic education.

Challenges of Implementing Artificial Intelligence in Inclusive Islamic Education

The implementation of AI in inclusive education poses ethical challenges regarding the privacy of sensitive data of students with disabilities, especially since the use of biometric data and behavioral patterns require strict security protocols to prevent misuse of personal information (Villarama et al., 2025)(Stelea et al., 2025)(Ma et al., 2025)(Faisal et al., 2025). Without adequate privacy guarantees, users' trust in the technology will be eroded, which in turn hinders the adoption of the technology (Qusef et al., 2025). In addition, there are deep concerns about algorithmic biases that often reinforce stereotypes or marginalize the voices of disability groups due to under-representative training datasets (Stelea et al., 2025)(Faisal et al., 2025). In South Africa, reliance on Western datasets and epistemology poses the risk of “digital colonialism”, where AI reinforces Eurocentric curricula instead of supporting decolonization efforts and epistemic justice (Maimela & Mbonde, 2025). Therefore, transparency in algorithmic

decision-making and the development of AI models that are sensitive to local culture are urgent ethical needs for the success of inclusive education (Villarama et al., 2025)(Stelea et al., 2025)(Maimela & Mbonde, 2025).

From a pedagogical perspective, the main obstacle lies in the low readiness and digital literacy of educators in integrating AI into inclusive practices. Many teachers feel they lack technical competence due to unsustainable professional training and unstructured institutional strategies (Villarama et al., 2025)(Ma et al., 2025)(Qusef et al., 2025)(Moral & Moreno-Tallón, 2025)(Bessong et al., 2025). This condition often results in inclusion policies being only "ceremonial" or symbolic without meaningful practical implementation in the classroom (Husin et al., 2025). Another challenge is the risk of over-reliance on AI which can erode students' critical thinking skills and analytical autonomy (Villarama et al., 2025)(Rahim et al., 2025). The loss of authentic social interaction between teachers and students is also a serious concern, given that students with functional diversity are in dire need of emotional support that machines often cannot replace (Villarama et al., 2025)(Rahim et al., 2025)(Tzimiris et al., 2023). In addition, integrity in AI-based assessments demands fair and valid evaluation mechanisms to avoid simplification of students' diverse cognitive profiles (Stelea et al., 2025)(Rahim et al., 2025).

The sustainability of future inclusive education programs will depend heavily on the provision of equitable access, strong technical support, and policies that align technological innovation with real needs on the ground. Thus, the challenges of implementing AI in inclusive Islamic education encompass three interrelated dimensions: ethics, pedagogy, and technology. Its success depends on secure data governance, fair algorithms, Islamic content validation, continuous teacher training, equitable infrastructure, and institutional policies that place students at the center of learning transformation.

CONCLUSION

This study concludes that AI has the potential to transform inclusive Islamic education through learning that is adaptive, personalized, accessible, and responsive to the diversity of students, while strengthening equity outcomes

through expanding access, participation, and opportunities for learning success. However, these benefits depend on ethical, pedagogical, technological, and institutional readiness, especially related to data privacy, algorithmic bias, validity of Islamic content, AI literacy of teachers, infrastructure, and the protection of human interaction and spiritual coaching. Therefore, AI needs to be positioned as an instrument to support teachers as murabbi, not as a substitute for educators, with an inclusive, fair, humanist development direction and in line with the values of 'adl, rahmah, amanah, and karamah insaniyyah.

REFERENCES

Ahsan, Z. (2025). Integrating artificial intelligence into medical education: a narrative systematic review of current applications, challenges, and future directions. *BMC Medical Education*, *25*(1), 1187. https://doi.org/10.1186/s12909-025-07744-0

Ambon, J., Alias, B. S., & Mansor, A. N. (2025). Crucial leadership competencies of school heads in effective school management: a comprehensive systematic review. *Journal of Education and Learning (EduLearn)*, *19*(3), 1216–1224. https://doi.org/10.11591/edulearn.v19i3.22012

Apriantoro, M. S., & Hamidah, A. M. (2026). The interface of disability and Islam: Insights from a bibliometric analysis. *Social Sciences & Humanities Open, 13*, 102431. https://doi.org/10.1016/j.ssaho.2025.102431

Bessong, B. E., Atah, C. A., Olom, P. A., Akeke, M. A. N., Erim, C. M., Udie, E. A., Elogbo, E. E., Udida, F. U., Azu, S. B., Odije, P. E., Olofu, P. A., Utoware, J. D. A., Mbum, P. A., Olajide, I. O., Dijeh, A. E., Agbogo, R. A., Esidene, A. G., Wonah, F. A., Ugiebeme, A. A., … Angioshuye, F. A. (2025). Leveraging Artificial Intelligence to Enhance Inclusive Teaching for Students with Intellectual Disabilities in Nigerian Universities. *Journal of Intellectual Disability - Diagnosis and Treatment*, *13*(4), 388–401. https://doi.org/10.6000/2292-2598.2025.13.04.4

Faisal, M., Pal, P., B. S, B. B., Makhija, H., Munjal, K., Mishra, A., & Ambhore, V. (2025). AI for Inclusive Art Education for Differently Abled Learners. *ShodhKosh: Journal of Visual and Performing Arts*, *6*(3s), 304–313. https://doi.org/10.29121/shodhkosh.v6.i3s.2025.6793

Gordon, M., Daniel, M., Ajiboye, A., Uraiby, H., Xu, N. Y., Bartlett, R., Hanson, J., Haas, M., Spadafore, M., Grafton-Clarke, C., Gasiea, R. Y., Michie, C., Corral, J., Kwan, B., Dolmans, D., & Thammasitboon, S. (2024). A scoping review of artificial intelligence in medical education: BEME Guide No. 84. *Medical Teacher*, *46*(4), 446–470. https://doi.org/10.1080/0142159X.2024.2314198

Husin, N., Fazlurrahman, H., Safitri, A., Dhenabayu, R., Rauf, U. A. A., & Fitrah, A. M. (2025). Policy Perspective on Proposed Framework of NLP AI to Bridge the Inclusive Support in Higher Education with a Mixed Methods Approach in Indonesia and Malaysia. *International Journal of Information and Education Technology*, *15*(12), 2686–2699. https://doi.org/10.18178/ijiet.2025.15.12.2464

Inayati, N. L., Mustofa, T. A., Rohmani, A. F., Anggraini, F. N., & Muthoifin. (2025). Development of Religious Education in Junior High Schools for Sustainable Development Goals (SDGs): a Study in Surakarta. *Journal of Lifestyle and SDGs Review*, *5*(2), e04411. https://doi.org/10.47172/2965-730X.SDGsReview.v5.n02.pe04411

Ma, K. W., Julianton, R. P., Chan, X. Y., Chai, Y. T., Mukred, M., Leen, M. W. E., & Gumaei, A. H. (2025). A Model for the Adoption of Artificial Intelligence in Inclusive Education: an Exploratory Study of Key Factors and Expert Insights. *Journal of Information Technology Education: Research*, *24*. https://doi.org/10.28945/5612

Maimela, C., & Mbonde, P. (2025). Artificial intelligence in South African universities: curriculum transformation and decolonisation—aid or obstacle? *Frontiers in Sociology*, *10*. https://doi.org/10.3389/fsoc.2025.1543471

Maksum, M. N. R., Asy'arie, M., & Aly, A. (2020). Democracy Education Through the Development of Pesantren Culture. *Humanities & Social Sciences Reviews*, *8*(4), 10–17. https://doi.org/10.18510/hssr.2020.842

Moral, S. V, & Moreno-Tallón, F. (2025). Artificial Intelligence and Inclusive Education: Technological Solutions for Accessible Teaching. A Systematic Review. *Digital Education Review*, *47*, 62–77. https://doi.org/10.1344/der.2025.47.62-77

Nirwana AN, A., Rifai, A., Ali, M., Ali Mustofa, T., Nur Vambudi, V., Nur Rochim Maksum, M., & Umar Budihargo, M. (2025). SWOT Analysis of AI Integration in Islamic Education: Cognitive, Affective, and Psychomotor Impacts. *Qubahan Academic Journal*, *5*(1), 476–503. https://doi.org/10.48161/qaj.v5n1a1498

Prayitno, H. J., Purnomo, H., Widyasari, C., Rahmawati, L. E., Ishartanto, N., Sutama, N. A., & Riyanto, S. (2025). Belajar.id vs. WAG: as feedback digital learning tools in primary school. *International Journal of Innovation and Learning*, *37*(2), 226–241. https://doi.org/10.1504/IJIL.2025.144204

Qusef, A., Murad, S., Alsalhi, N. R., & Gharaibeh, F. A. (2025). Leveraging Artificial Intelligence to Identify Students with Learning Challenges. *International Journal of Learning, Teaching and Educational Research*, *24*(5), 623–643. https://doi.org/10.26803/ijlter.24.5.32

Rahim, S., Sahar, G., Jabeen, G., Khatoon, S., & Angaiz, D. (2025). Harnessing

generative AI: Reviewing applications, challenges, and solutions for out-of-school children in developing regions. *Sustainable Futures*, *10*. https://doi.org/10.1016/j.sftr.2025.101206

Simoni, J., Urtubia-Fernandez, J., Mengual, E., Simoni, D. A., Royo, M., Egaña-Yin, D., Hertog, O. L. A., López-Ortiz, L., Muñoz-Tomás, A., Santiago-Martínez, P., Vahamaki, A., & Pereira, J. L. (2025). Artificial intelligence in undergraduate medical education: an updated scoping review. *BMC Medical Education*, *25*(1), 1609. https://doi.org/10.1186/s12909-025-08188-2

Stelea, G. A., Robu, D., & Sandu, F. (2025). AccessiLearnAI: An Accessibility-First, AI-Powered E-Learning Platform for Inclusive Education. *Education Sciences*, *15*(9). https://doi.org/10.3390/educsci15091125

Tzimiris, S., Nikiforos, S., & Kermanidis, K. L. (2023). Post-pandemic pedagogy: Emergency remote teaching impact on students with functional diversity. *Education and Information Technologies*, *28*(8), 10285–10328. https://doi.org/10.1007/s10639-023-11582-2

Unesco. (2023). *Every learner matters: Disability inclusion and gender equality in education*. Unesco. https://unesdoc.unesco.org/ark:/48223/pf0000388288

Unicef. (2021). *Nearly 240 million children with disabilities around the world, UNICEF's most comprehensive statistical analysis finds*. Unicef. https://www.unicef.org/press-releases/nearly-240-million-children-disabilities-around-world-unicefs-most-comprehensive

Villarama, J. A., Dela Cruz, L. M. M. V., Barcelita, K. J. C., Fitriani, I., & Techakosit, S. (2025). Utilizing Interactive Artificial Intelligence in English Language and Science in Select Southeast Asian Classrooms. *Jurnal Ilmiah Ilmu Terapan Universitas Jambi*, *9*(3), 1194–1204. https://doi.org/10.22437/jiituj.v9i3.40293