



Exploring the Integration of Artificial Intelligence in Special Education: A Case Study of Teachers' Experiences in Pagadian City

April Dawn B. Ruales¹, Mike R. Canoy¹, Lovely Mae C. Tulang¹, Eva A. Lumagdas¹, and Genesis B. Naparan¹

¹Saint Columban College, Pagadian City, Zamboanga del Sur, Philippines

Corresponding Author: aprildawn.ruales@sccpag.edu.ph

ORCID IDs: April Dawn B. Ruales: 0000-0001-8063-8925 | Mike R. Canoy: 0009-0009-2834-4108 | Lovely Mae C. Tulang: 0009-0005-5026-1772 | Eva A. Lumagdas: 0009-0009-0774-5244

Abstract

Special education (SPED) classrooms in developing countries face a critical gap between national digital transformation policies and ground-level implementation realities. This study investigated how SPED teachers at Tomas Sagun Integrated School in Pagadian City, Philippines, incorporate Artificial Intelligence (AI) into instruction for students with special needs. Using a qualitative case study design, semi-structured interviews were conducted with eight purposively selected SPED teachers, analyzed thematically through the TPACK Framework, Vygotsky's Sociocultural Theory, the Technology Acceptance Model, and the Philippine Professional Standards for Teachers. Four key themes emerged: AI use remains minimal but gradually emerging; AI is employed mainly for administrative tasks and lesson preparation rather than direct classroom instruction; persistent barriers include poor infrastructure, absence of formal AI training, lack of institutional policy, and disability-specific constraints; and teachers firmly believe that compassionate, relationship-driven pedagogy cannot be replaced by AI. The study concludes that limited AI adoption is driven primarily by structural and systemic challenges rather than teacher resistance, and offers evidence-based recommendations for policy, professional development, and classroom practice in AI-supported special education.

Keywords

artificial intelligence, special education, SPED teachers, technology integration, Philippines

1. Introduction

Artificial Intelligence (AI) has swiftly transitioned from a fringe technological concept to a central force shaping modern education policy and classroom practice. Schools worldwide are increasingly adopting AI-driven tools—ranging from intelligent tutoring systems and adaptive learning platforms to speech recognition and assistive communication technologies—to personalize learning, reduce teacher workload, and broaden educational access for historically marginalized learners. This global shift reflects a shared conviction that technology, when deliberately and thoughtfully applied, can reshape how teaching and learning occur and how educational equity is achieved (Harkins-Brown et al., 2025; Fitas, 2025; Alam, 2026). This potential carries its greatest moral weight in special education, where



students with disabilities encounter compounded obstacles to learning and where individualized, responsive instruction is not merely a pedagogical preference but a legal and ethical imperative.

A growing body of research supports AI's promise for learners with special needs. Al-Hendawi and H. E. (2025) identified five major areas of AI application in special education from a systematic review spanning 2019 to 2024: personalized learning, communication support, cognitive and behavioral intervention, emotional support, and physical support. For students with autism spectrum disorder (ASD), platforms incorporating emotion recognition, gamified content, and speech simulation have demonstrated effectiveness in developing social and communicative skills (Song et al., 2025). Adaptive learning systems have become the most widely used AI application for students with learning disabilities, enabling differentiated pacing and targeted skill-building (Panjwani-Charania & Zhai, 2024). AI-based diagnostic tools have also achieved accuracy rates above 90% in detecting conditions such as dyslexia and dysgraphia (Ulas et al., 2025). Beyond direct instruction, AI assists educators in managing administrative demands—including development of Individualized Education Plans (IEPs), progress monitoring, and documentation (Alam, 2026; Harkins-Brown et al., 2025).

Despite these encouraging developments, a significant gap persists between AI's theoretical promise and its practical application in special education classrooms. Teachers' mindsets, technological proficiency, and professional preparation are among the most influential factors determining whether AI is meaningfully integrated (Goldman et al., 2025; Fteiha et al., 2025). Infrastructure challenges further widen this gap: Almarzouq et al. (2025) found that limited devices and unreliable internet access were the most critical obstacles to AI use among special education teachers in Kuwait, while Gupta and Kaul (2024) highlighted how unequal technological infrastructure in developing countries risks reinforcing rather than reducing educational inequalities.

In the Philippine context, these challenges carry unique dimensions. The country is home to an estimated 1.6 million school-age children with disabilities, many enrolled in public school SPED programs operating under considerable resource limitations (Republic Act No. 11650, 2022). Republic Act No. 11650 (2022) mandates inclusive education and individualized education plans for learners with disabilities, while Republic Act No. 7277 (1992), the Magna Carta for Disabled Persons, enshrines their right to accessible and equitable education. At the national level, the Department of Education (DepEd) launched Project AGAP.AI in January 2026—a landmark initiative aligned with the ASEAN Vision 2045 and the current administration's digital transformation agenda—envisioning the systematic embedding of AI into basic education, including AI-focused in-service training for teachers (Department of Education, 2026).

Yet despite this policy momentum, the Philippines remains notably absent from international research on AI in special education. Al-Hendawi and H. E. (2025) identified Southeast Asia as among the most underrepresented regions in AI-SPED scholarship. While Wabingga (2025) documented SPED teachers' difficulties with digital instruction during the pandemic in Davao del Sur, and Manaig et al. (2025) found a meaningful relationship between AI awareness and digital competence among Filipino public school teachers, neither study directly addresses AI integration in SPED nor the day-to-day instructional realities of teachers working with students with disabilities in a provincial public school environment.

It is within this gap that the present study is situated. This study explores how special education teachers at Tomas Sagun Integrated School in Pagadian City, Zamboanga del Sur, Philippines, make use of Artificial Intelligence in their instructional practice for students with special needs. The study draws on four complementary theoretical frameworks: Mishra and Koehler's (2006) TPACK Framework, Vygotsky's (1978) Sociocultural Theory of Learning, Davis's (1989) Technology Acceptance Model (TAM), and the Philippine Professional Standards for Teachers (PPST).

The study is guided by six objectives: (1) to explore the types of AI tools that SPED teachers access and use; (2) to describe the instructional purposes for which AI is employed; (3) to examine challenges and barriers to AI integration; (4) to understand teachers' views on AI's effectiveness with diverse learners;



(5) to interpret meanings teachers attribute to AI integration in relation to their professional identity; and (6) to identify support structures necessary for more meaningful AI use in special education.

2. Methodology

2.1. Research Design

This study employs a qualitative research approach underpinned by an interpretive philosophical orientation. Qualitative inquiry is most appropriate when the aim is to understand human experience, generate meaning from social phenomena, and explore the complexity of lived practice within its natural context (Creswell & Poth, 2018). Specifically, the study adopts a qualitative case study design following Yin (2018) and Merriam and Tisdell (2016). Tomas Sagun Integrated School constitutes the primary bounded case—a specific, identifiable public school with a functioning SPED program in a provincial Philippine city—and the phenomenon of interest is how teachers within this institution use AI in their special education practice. The case study design is preferred for its capacity to accommodate multiple data collection methods and to situate AI use within the particular institutional, geographic, and cultural context that constitutes the phenomenon.

2.2. Research Setting

The study is situated at Tomas Sagun Integrated School, located in Pagadian City, the capital of Zamboanga del Sur province in the Zamboanga Peninsula region of the Philippines. As a public integrated school operating under DepEd's Zamboanga Peninsula Regional Office, the school offers both general and special education programs and is subject to national mandates, including Republic Act No. 11650 (2022) and DepEd Order No. 42, s. 2017. This setting was selected for its representation of a provincial public school context characterized by resource constraints and infrastructural limitations typical of many public institutions in the Philippines.

2.3. Participants and Sampling Strategy

The participants are SPED teachers assigned to the SPED program at Tomas Sagun Integrated School with direct instructional responsibility for students with disabilities. Purposive sampling was employed, guided by four eligibility criteria: (a) currently active assignment to the SPED program at the time of the study; (b) minimum of one academic school year of SPED teaching experience; (c) prior encounter or use of technology, digital tools, or AI-assisted resources in any form; and (d) voluntary and informed consent to participate in all phases of data collection. A total of eight (8) SPED teachers participated, with teaching experience ranging from 2 to 28 years. They collectively handled learners across a broad spectrum of exceptionalities, including intellectual disability, autism spectrum disorder, learning disabilities, visual impairment, hearing impairment, and multiple disabilities. Data saturation was achieved by the conclusion of the eighth interview, consistent with expectations for a bounded single-site qualitative case study (Creswell & Poth, 2018).

2.4. Data Collection Methods

Following the methodological tradition of case study research, three complementary data collection methods were employed to generate a rich, multi-perspectival picture of the phenomenon (Yin, 2018). Semi-structured individual interviews served as the primary data source, most appropriate for accessing teachers' subjective experiences, perceptions, and professional reasoning (Merriam & Tisdell, 2016). The interview guide was organized around seven thematic domains derived from the research objectives and theoretical frameworks. Interviews lasted approximately 30 to 60 minutes, were conducted in person at the school premises, and were audio-recorded with participants' consent and subsequently transcribed verbatim. Participants were encouraged to respond in their most comfortable language—English, Filipino, or Bisaya—to maximize the richness and authenticity of responses.



Non-participatory classroom observations were conducted as a secondary method to triangulate interview data. Each participant was observed in a minimum of two classroom sessions. An observation guide directed attention toward AI tools present and in use, teacher-student interactions during AI-mediated instruction, real-time adaptations, and contextual factors such as connectivity and device availability. Document analysis served as a supplementary method, examining lesson plans, IEPs incorporating technology-based strategies, school technology policies, and records of teacher participation in technology-related training.

2.5. Data Analysis

Data analysis was conducted using thematic analysis as described by Braun and Clarke (2006), adapted to the interpretive case study tradition in which data from multiple sources are integrated and analyzed holistically. The analysis proceeded through six phases: (1) familiarization with the data through repeated reading and analytic memo-writing; (2) generating initial codes both inductively from the data and deductively guided by the theoretical frameworks; (3) searching for themes by grouping related codes into candidate patterns; (4) reviewing and refining themes against the full dataset; (5) defining and naming themes with precision and supporting evidence; and (6) writing the analytic report integrating interpretations with participants' verbatim quotations.

2.6. Trustworthiness and Ethical Considerations

Trustworthiness was addressed through Lincoln and Guba's (1985) four criteria: credibility (through triangulation, member checking, and peer debriefing), transferability (through thick, rich description), dependability (through a comprehensive audit trail), and confirmability (through reflexivity and a reflexive journal). Ethical protocols included written informed consent from all participants, strict confidentiality using alphanumeric codes (Teacher 1 through Teacher 8), and secure data storage. Formal institutional permissions were obtained from the school principal, the Schools Division Superintendent of the DepEd Division of Pagadian City, and Saint Columban College's Institutional Review Board prior to fieldwork.

3. Results and Discussion

Thematic analysis yielded four major themes: (1) Limited but Emerging AI Engagement Among SPED Teachers; (2) AI as an Administrative and Instructional Aid Rather Than a Direct Classroom Tool; (3) Persistent Barriers to AI Integration; and (4) Teachers' Recognition of Human-Centered Pedagogy as Irreplaceable. Each theme is presented with supporting participant quotations and discussed in relation to the theoretical frameworks and existing literature.

3.1. Theme 1: Limited but Emerging AI Engagement Among SPED Teachers

Across all eight participant interviews, a clear pattern emerged: formal, intentional integration of AI tools into SPED classroom instruction remains largely absent at Tomas Sagun Integrated School. Six of the eight participants reported not having meaningfully used AI tools in their SPED classrooms. Teacher 4, who handles learners with visual impairment, was particularly direct: 'Wala. Dili ko gagamit' [None. I do not use it], explaining that her instructional approach remains firmly hands-on and manual. Teacher 5, one of the most senior participants with 25 years of experience, candidly stated that she was only at approximately 5% of AI exploration: 'Ug atoa e porsyento, 5% palang gani ko' [If we put it in percentage, I am only at 5%].

Teacher 1, a veteran educator, expressed deliberate restraint rather than mere unfamiliarity: 'I will not be dependent for that. Magsalig naman gud imong utok, instead of learning' [You should rely on your own mind, instead of depending on it for learning]. This mirrors the findings of Fteiha et al. (2025), who documented a significant gap between favorable attitudes toward AI and actual classroom AI practice among special education teachers. While direct AI use was minimal, several participants reported using digital tools at the boundary between conventional technology and AI-powered platforms. Teachers 3



and 8 identified Canva as frequently used for creating visual learning materials, and Teacher 8 mentioned Kahoot for interactive activities. Notably, none classified these tools as 'AI,' yet platforms like Canva increasingly integrate AI-powered design suggestions—pointing to a conceptual ambiguity around what counts as AI among practicing SPED teachers, a pattern similarly documented by Manaig et al. (2025). Despite low overall use, Teacher 2 stood out as the most enthusiastic participant, rating AI's effectiveness at '10/10' and stating: 'Muadapt gyud mi sa AI. Maningkamot gyud ko makabalo ko anang AI, interactive man gud siya' [We must adapt to AI. I will really strive to learn it, because it is interactive].

3.2. Theme 2: AI as an Administrative and Instructional Aid Rather Than a Direct Classroom Tool

Where AI use did occur, it was predominantly in administrative and lesson preparation tasks—particularly IEP development and lesson planning—rather than in direct, real-time instruction. Teacher 6 provided the most detailed account: 'I just ask the AI to create me an IEP with this goal and then it responded by giving goals and possible activities that can help the child.' She noted the need to adjust AI-generated language for parent accessibility, demonstrating critical professional evaluation of AI output—a practice supported by Harkins-Brown et al. (2025). Teacher 2 described using AI to deepen her understanding of lesson content: 'Miski pag kabalo nako sa answer, mu dig deeper gihapon ko gamit ang AI' [Even when I already know the answer, I still dig deeper using AI].

This pattern—where AI assists teachers in preparatory work rather than serving as a direct instructional tool—is consistent with Goldman et al. (2025), who found that AI use among special education teachers was most common in peripheral and administrative tasks. From a TPACK perspective (Mishra & Koehler, 2006), these teachers may possess sufficient Technological Knowledge for general tasks but have not yet developed the Technological Pedagogical Content Knowledge required to apply AI directly and effectively in specialized SPED instructional contexts. Teachers 1, 3, 4, and 7 all emphasized that their students' needs are so individualized, behavioral, and relationally complex that existing AI tools do not readily map onto their classroom realities. Teacher 3 articulated this gap: 'Ang iyahang feelings—dili mana siya mahimo sa AI' [The child's feelings—AI cannot do that]. Teacher 4 stated: 'Dili man mao ilang kinahanglan' [That is not what they need], referring to her visually impaired learners who require tactile, Braille-based, one-on-one instruction.

3.3. Theme 3: Persistent Barriers to AI Integration

Multiple, overlapping barriers constrain AI integration, operating at infrastructural, institutional, and professional levels. Poor or absent internet connectivity was the most frequently cited barrier, mentioned by Teachers 5, 6, and 8. Teacher 5 noted: 'Amoa galing internet mabalaw pami mangita ug stable connection' [Our internet is really bad—we always look for a stable connection]. Teacher 6 shared that her school building entirely lacked internet connection. Teacher 2 highlighted the lack of student gadgets: 'Nindot unta kung naa gyuy mga gadget nga mukuan gyud, wala man so far' [It would be great if there were gadgets—but so far there are none]. These accounts illustrate the infrastructure gap separating AI's theoretical promise from practical reality in a provincial Philippine public school—well-documented in low-income educational settings (Almarzouq et al., 2025; Chanthiran et al., 2025; Gupta & Kaul, 2024).

A second major barrier was the near-universal absence of formal, structured AI training specific to special education. The majority of participants responded to questions about training with 'wala' [none]. Teacher 8 expressed a preference for hands-on training: 'During seminars, there are many teachers and sometimes we just listen, but we do not get enough time to explore the apps ourselves.' Teacher 5 captured the experiential dimension poignantly: 'Pildi ko sa Grade 9' [I lost to a Grade 9 student]. Without accessible, contextualized training, teachers are unlikely to develop the confidence or competence necessary for sustained AI integration, as the TAM framework (Davis, 1989) predicts that lack of training directly undermines perceived ease of use—a critical antecedent to adoption.



A third barrier was the complete absence of any clear institutional policy or administrative guidance on AI use. All participants indicated that no formal policy existed. Teacher 6 noted a contradictory institutional message: AI-generated content was flagged as unacceptable in school papers submitted for official purposes, yet no clear guidelines governed AI use more broadly. This policy vacuum is particularly significant given DepEd's Project AGAP.AI (2026) national aspirations, and resonates with the three-tiered support system proposed by Li (2025), which identified macro-level policy support, meso-level institutional infrastructure, and micro-level teacher development as mutually necessary conditions for effective AI integration. A fourth barrier was the perceived inapplicability of available AI tools to specific learner needs—particularly for students with intellectual disability and visual impairment—whose learning requires intensive, embodied, one-on-one interaction that does not readily accommodate digital mediation.

3.4. Theme 4: Teachers' Recognition of Human-Centered Pedagogy as Irreplaceable

Across all eight interviews, participants drew clear and consistent distinctions between what AI can and cannot do. Teacher 3 articulated this with particular clarity: 'Ang iyahang feelings—dili mana siya mahimo sa AI... imo manang doulon ang bata, imuha siya e comfort' [The child's feelings—AI cannot do that... you must go near the child and comfort them]. Teacher 7 stated directly: 'AI cannot replace the compassion, engagement, and motivation that teachers provide to students.' Teacher 4 voiced concern about the broader trajectory of AI adoption: 'Kadugayan aning AI mura natag robot' [Eventually, with AI, we might become like robots]—echoing concerns raised by Kumari (2025) and Fitas (2025), who warned against the substitution of AI for the irreplaceable emotional intelligence of human educators.

Teachers also consistently foregrounded professional judgment and contextual responsiveness as dimensions of practice beyond AI's reach. Teacher 1 described her IEP development as rooted in direct knowledge of the child: 'I based it through the child's behavior and needs.' Teacher 4 similarly stated: 'Dili makita sa AI ang personality sa bata' [AI cannot see the child's personality]. This professional disposition reflects deep TPACK competencies (Mishra & Koehler, 2006) in Pedagogical Content Knowledge specific to special education, and resonates with Vygotsky's (1978) conceptualization of the teacher as the primary more knowledgeable other who orchestrates the Zone of Proximal Development. The teachers did not reject AI as a scaffold, but consistently positioned themselves as the irreplaceable architects of that scaffolding process.

At the same time, teachers' commitment to human-centered pedagogy did not translate into wholesale rejection of AI. Most articulated a position of cautious, conditional openness. Teacher 8 offered perhaps the most nuanced synthesis: 'AI can help, especially in creating clear and realistic pictures or materials for lessons,' while simultaneously cautioning against student over-reliance and emphasizing the teacher's role in modeling responsible AI use: 'It is important to teach students the correct way to use AI.' This measured stance suggests a population of teachers whose reluctance to adopt AI is not rooted in technophobia but in a sophisticated, experience-grounded understanding of what their students genuinely need.

4. Theoretical Interpretation

From a TPACK perspective (Mishra & Koehler, 2006), most participants demonstrate sufficient Pedagogical Content Knowledge for their specific disability groups but have not yet developed the Technological Pedagogical Content Knowledge necessary to integrate AI meaningfully into SPED instructional practice. The TAM framework (Davis, 1989) further illuminates why adoption remains limited: without training that demonstrates practical usefulness and ease of use for SPED-specific tasks, AI does not cross the threshold of perceived usefulness necessary to motivate behavioral adoption. Through a Vygotskian (1978) lens, the teachers' insistence on the primacy of human-mediated interaction reflects an accurate understanding of how learning occurs for students with special needs. Their hesitance to adopt AI for direct instruction is, in this sense, pedagogically sound.



Against the backdrop of the Philippine Professional Standards for Teachers (DepEd, 2017), the data reveal a workforce whose professional values are robust but whose technology-related competencies are constrained by structural and institutional factors rather than personal unwillingness. This distinction is critical for policy: the barriers to AI integration in this context are primarily systemic, not attitudinal, and call for systemic solutions—infrastructure investment, accessible professional development, and clear institutional policy guidance. The findings enrich the existing international literature: consistent with Fteiha et al. (2025) and Goldman et al. (2025), the study confirms that favorable dispositions toward AI do not automatically translate into classroom practice; consistent with Almarzouq et al. (2025) and Gupta and Kaul (2024), it demonstrates that infrastructure deficits and training gaps are primary barriers in resource-constrained settings.

5. Conclusion

This study explored how SPED teachers at Tomas Sagun Integrated School in Pagadian City, Philippines, engage with Artificial Intelligence in their instructional practice. The qualitative case study findings reveal that AI use among these teachers remains minimal but is gradually emerging, with applications concentrated in administrative tasks rather than direct classroom instruction. Persistent barriers—including inadequate technological infrastructure, absence of formal AI training, lack of institutional policy, and disability-specific constraints—collectively account for low adoption, pointing to structural and systemic failures rather than individual teacher deficiencies. Most significantly, teachers consistently articulated a profound and experience-grounded commitment to human-centered, relational pedagogy as the irreplaceable core of special education practice.

The six research objectives have been directly addressed: the study documented AI tool types accessed, instructional purposes served, challenges constraining adoption, teachers' views on AI effectiveness, professional identity dimensions mediating AI engagement, and the support structures teachers identify as necessary. The findings contribute a locally situated, teacher-voiced perspective to the still underrepresented body of literature on AI use in special education across Southeast Asia.

For AI integration to be meaningful in provincial public SPED classrooms, national policy must be accompanied by direct investments in school-level technology infrastructure, targeted hands-on professional development specifically designed for SPED teachers, and the development of clear, SPED-contextualized guidelines for responsible AI use. Teacher 6 captured the most pressing needs: 'Siguro having seminars on how to use AI. Dayon internet connection... Kining mga tablets specially sa mga non-verbal naku' [Perhaps seminars on how to use AI. Then internet connection... Especially tablets for my non-verbal students]. Collaborative learning structures such as Learning Action Cell (LAC) sessions, peer mentoring, and communities of practice around AI-SPED integration could serve as low-cost, contextually appropriate mechanisms for building collective competence.

Future research should pursue longitudinal designs following the same cohort of teachers over time as professional development expands and AI tools evolve. Comparative studies across different SPED schools in Zamboanga del Sur and the broader Mindanao region would help assess the generalizability of these findings. Research directly involving students with special needs and their families in evaluating AI tools would provide an essential learner-centered perspective currently absent from the literature. Mixed-methods studies combining teacher self-report with systematic observation and tool usage data would provide a more comprehensive account of actual AI integration patterns in Philippine SPED contexts.

6. Acknowledgements

The authors extend their sincere gratitude to the eight SPED teachers of Tomas Sagun Integrated School who generously shared their time, experiences, and professional insights. Their dedication to their students and to inclusive, compassionate education is the foundation upon which this research rests. The authors also acknowledge the support of Saint Columban College's Institutional Review Board, the DepEd Division of Pagadian City, and the school administration of Tomas Sagun Integrated School.



Author Contributions: Conceptualization, A.D.B.R. and G.B.N.; Methodology, A.D.B.R. and M.R.C.; Formal Analysis, A.D.B.R., L.M.C.T., and E.A.L.; Writing—Original Draft Preparation, A.D.B.R.; Writing—Review and Editing, M.R.C. and G.B.N.; Supervision, G.B.N. All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Alam, M. M. (2026). Artificial intelligence and education for children with special needs. *International Journal of Research and Analytical Reviews*, 13(1), 606–613.
2. Al-Hendawi, M., & H. E. (2025). Investigation into the applications of artificial intelligence (AI) in special education: A literature review. *Social Sciences*, 14(288).
<https://doi.org/10.3390/socsci14050288>
3. Almarzouq, N. S., Almedlij, M. A., & Alshahrani, H. (2025). Special education teachers' perspectives on the use of artificial intelligence applications in teaching students with disabilities. *Educational Process: International Journal*, 17, e2025407.
<https://doi.org/10.22521/edupij.2025.17.407>
4. Alsudairy, N. A., & Eltantawy, M. M. (2024). Special education teachers' perceptions of using artificial intelligence in educating students with disabilities. *Journal of Intellectual Disability—Diagnosis and Treatment*, 12, 92–102. <https://doi.org/10.6000/2292-2598.2024.12.02.5>
5. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
6. Cabanes, A. A., & Galigao, R. P. (2025). Evaluating AI-powered assistive technologies in inclusive education: A systematic review of literature on efficacy and accessibility. *International Journal of Research and Innovation in Social Science*, 9(3IS), 5568–5577.
<https://dx.doi.org/10.47772/IJRISS.2025.903SEDU0405>
7. Chanthiran, M., Mariappan, P., Govinndasamy, P., & Kanawazi, K. (2025). Interpreting the role of artificial intelligence (AI) tools and assistive technologies in enhancing accessibility in primary school special education. *MJSSH Online: Malaysian Journal of Social Sciences and Humanities*, 9(4), 53–64. <https://doi.org/10.33306/mjssh/365>
8. Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications.
9. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
10. Department of Education. (2017). *Philippine Professional Standards for Teachers* (DepEd Order No. 42, s. 2017). Department of Education.
11. Department of Education. (2026, January 9). Future-ready education: PBBM, Angara naglunsad ng AI Program para suportahan ang mga guro at mag-aaral.
<https://www.deped.gov.ph/2026/01/09/future-ready-education-pbbm-angara-naglunsad-ng-ai-program-para-suportahan-ang-mga-guro-at-mag-aaral/>
12. Fitias, R. (2025). Inclusive education with AI: Supporting special needs and tackling language barriers. *AI and Ethics*, 5(2), 5729–5757. <https://doi.org/10.1007/s43681-025-00824-3>
13. Fteiha, M., Al-Rashaida, M., & Ghazal, M. (2025). General and special education teachers' readiness for artificial intelligence in classrooms: A structural equation modeling study. *PLoS One*, 20(9), e0331941. <https://doi.org/10.1371/journal.pone.0331941>



14. Goldman, S. R., Smith, S. J., & Carreon, A. (2025). Special education teachers' use of AI to support students with disabilities in writing. *Frontiers in Education*, 10, Article 1710974. <https://doi.org/10.3389/feduc.2025.1710974>
15. Gupta, M., & Kaul, S. (2024). AI in inclusive education: A systematic review of opportunities and challenges in the Indian context. *MIER Journal of Educational Studies Trends & Practices*, 14(2), 429–461. <https://doi.org/10.52634/mier/2024/v14/i2/2702>
16. Harkins-Brown, A. R., Carling, L. Z., & Peloff, D. C. (2025). Artificial intelligence in special education. *Encyclopedia*, 5(1), 11. <https://doi.org/10.3390/encyclopedia5010011>
17. Kumari, R. K. (2025). Artificial intelligence in special education: Enhancing learning outcomes for students with disabilities (pp. 79–111). IGI Global. <https://doi.org/10.4018/979-8-3693-5538-1.ch003>
18. Li, Z. (2025). Artificial intelligence enabling special education teacher development: Building support systems and practical paths. *International Theory and Practice in Humanities and Social Sciences*, 2(5), 92–105. <http://doi.org/10.70693/itphss.v2i5.318>
19. Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. SAGE Publications.
20. Manaig, K. A., Yazon, A. D., Buama, C. A. C., & Bonganciso, R. T. (2025). Teachers' awareness in artificial intelligence and digital competence in the workplace. *Advanced Journal of STEM Education*, 3(1), 26–43. <https://doi.org/10.31098/ajosed.v3i1.3302>
21. Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.
22. Mishra, P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *Teachers College Record*, 108(6), 1017–1054. <https://doi.org/10.1111/j.1467-9620.2006.00684.x>
23. Mo, D., & Mo, B. (2024). A study of artificial intelligence-driven educational intervention strategies for students with special educational needs. *Applied Mathematics and Nonlinear Sciences*, 9(1), 1–17. <https://doi.org/10.2478/amns-2024-3059>
24. Ozbilen, F. M., Gunay, G., Dilber, Y., & Esen, F. (2025). Evaluation of teachers' views on the use of artificial intelligence in the education of students with special education needs. *Kulonleges Banasmad Interdisziplinariis folyoirat*, 11(3), 115–128. <https://doi.org/10.18458/KB.2025.3.115>
25. Panjwani-Charania, S., & Zhai, X. (2024). AI for students with learning disabilities: A systematic review. In X. Zhai & J. Krajcik (Eds.), *Uses of artificial intelligence in STEM education* (pp. 469–496). Oxford University Press. <https://doi.org/10.1093/oso/9780198882077.003.0021>
26. Patton, M. Q. (2015). *Qualitative research and evaluation methods: Integrating theory and practice* (4th ed.). SAGE Publications.
27. Republic Act No. 7277, *Magna Carta for Disabled Persons* (Phil. 1992). <https://www.officialgazette.gov.ph/1992/03/24/republic-act-no-7277/>
28. Republic Act No. 11650, *An Act Instituting a Policy of Inclusion and Services for Learners with Disabilities in Support of Inclusive Education*, 118 Official Gazette No. 12, 2828 (Phil. 2022).
29. Shaheen, H. R. A., & Zanoon, N. I. M. (2025). The role of artificial intelligence applications for individuals with special needs: Perceptions of special education teachers in Amman city, Jordan. *TPM*, 32(4), 1673–1679. <https://www.tpmmap.org/>



30. Song, Y., Sang, H., Chen, S., Chen, L., & Cai, J. (2025). Application and trends of artificial intelligence in special education: A case study of autistic children. *Journal of Contemporary Educational Research*, 9(10), 23–30.
31. Sumer Dodur, H. M., & Kose, G. (2025). General special education pre-service teachers' conscientiousness and their attitudes towards artificial intelligence: The mediating roles of AI literacy and AI anxiety. *European Journal of Education*, 4 (early view), 70276. <https://doi.org/10.1111/ejed.70276>
32. Ulas, R., Adci, B., & Ilker, O. (2025). Artificial intelligence and innovative educational technologies in students with learning disabilities: A systematic review. *Journal of Teacher Education and Lifelong Learning*, 7(2), 248–262. <https://doi.org/10.51535/tell.1725012>
33. Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
34. Wabingga, R. J. S. (2025). SPED teachers: The stories of their struggles in the new normal education. *Journal of Interdisciplinary Perspectives*, 3(5), 337–345. <https://doi.org/10.69569/jip.2024.678>
35. Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE Publications.