IJMSHE
ISSN: 3082-3021 (Online)

International Journal of Multidisciplinary Studies in Higher Education

Journal Homepage: https://ijmshe.com/index.php/pub/index
E-ISSN: 3082-3021



Literature Review

Teachers' Readiness for AI Integration and Inclusive Education: A Systematic Literature Review of Empirical Studies, 2021–2026

Sherlyn Mae P. Alboroto [1*] | Bernard John Abad [2] | Erlisa M. Apura [3] | Marleonie M. Bauyot [4]

[1] Teacher, Department of Education, General Santos City, Philippines
[2] Faculty, Jose Maria College Foundation, Inc., Davao City, Philippines
[3] Faculty, Notre Dame RVM, College of Cotabato, Inc., Cotabato City, Philippines
[4] Faculty, Ateneo de Davao University, Davao City, Philippines
*Correspondence: sherlynalboroto570@gmail.com

https://doi.org/10.70847/743884

Article history:

Received: 26 September 2026
Revised: 30 October 2026
Accepted: 6 November 2026

© **The Author(s) 2026.** This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY)license(http://creativecommons.org/licenses/by/4.0/

Abstract

Artificial intelligence (AI) may support personalization, accessibility, and differentiated instruction, but these possibilities depend on teachers' capacity to evaluate and use AI responsibly in diverse classrooms. This systematic review synthesized empirical evidence on teacher readiness, reported AI-supported inclusive practices, and implementation barriers. Methods: Guided by PRISMA 2020, four sources—Google Scholar, DOAJ, ERIC, and Scopus—were searched for peer-reviewed empirical studies published from January 2021 to August 14, 2026. Three reviewers screened records, cross-checked extracted information, resolved disagreements by consensus, and appraised studies using MMAT 2018. The review was not prospectively registered. Results: From 78 records, five duplicates were removed; 73 records were screened, 28 full texts assessed, and 25 studies included (15 quantitative, six qualitative, and four mixed-methods). Study-level coding identified training/professional development in 21 studies, accessibility/inclusion/disability support in 24, and personalization/differentiation in 18. These counts indicate topic coverage, not teacher prevalence or intervention effectiveness. Readiness was generally favorable in attitudes and perceived usefulness but uneven in applied competence, institutional support, and sustained use. Much of the evidence relied on cross-sectional self-report designs. Inclusive AI integration requires applied AI literacy, pedagogical judgment, sustained professional learning, accessible infrastructure, ethical governance, and institutional support. The available evidence is stronger for perceptions and reported practices than for observed implementation or independently measured learner outcomes.

Keywords: artificial intelligence in education; teacher readiness; AI literacy; inclusive education; differentiated instruction; professional development, systematic literature review

1. Introduction

AI tools are now being considered for a range of teaching tasks, including lesson preparation, assessment, feedback, and the adaptation of learning materials. Examples include generative systems, adaptive learning platforms, learning analytics, and assistive applications. In inclusive classrooms, these tools may help teachers respond to differences in learners' language, pace, communication, prior knowledge, access needs, and abilities. Their educational contribution, however, depends on the decisions teachers make when selecting and using them. For this review, teacher readiness means the combination of knowledge, practical skills, confidence, self-efficacy, attitudes, willingness, and preparedness needed to use AI responsibly in teaching. A positive view of AI does not necessarily mean that a teacher can apply it effectively. Practical skill, appropriate guidance, accessible infrastructure, and support from the institution may still be lacking. These conditions matter particularly in inclusive education, where unsuitable or poorly evaluated tools can introduce bias, restrict access, or weaken teachers' ability to respond to individual learners.

Existing reviews and empirical syntheses have examined AI in education, teacher acceptance and literacy, and AI applications in special or inclusive education, but these strands do not always use the same populations, constructs, or outcome definitions. Acceptance-focused work commonly emphasizes perceived usefulness, ease of use, and intention; AI-literacy work examines knowledge and evaluative capability; special-education work often describes assistive or personalized applications. These approaches answer related but different questions. The present review does not claim that no prior review has connected these areas. Its contribution is a structured comparison of readiness indicators with the kinds of inclusive practice actually reported, while distinguishing perceptions, intentions, self-reported use, observed enactment, and independently measured learner outcomes. A definitive comparison with the closest recent reviews remains limited because the supplied manuscript contains no dedicated review-of-reviews search or verified comparative extraction; this is therefore a bounded integrative contribution rather than a claim of exhaustive novelty. The present review examines how teacher preparedness relates to AI-supported inclusive classroom practice. It considers knowledge, AI literacy, competence, confidence, self-efficacy, attitudes, willingness, and institutional conditions alongside differentiation, accessibility, accommodations, participation, assistive support, and learner diversity. The synthesis separates perceived potential from self-described implementation and from direct evidence of classroom enactment or learner outcomes.

Conceptual Background

Access to an AI application and the ability to use it well for teaching are different matters. Availability refers to whether teachers and schools can obtain tools such as generative systems, adaptive applications, analytics, assistive technologies, or automated feedback. Readiness concerns the capacity to select

these tools, evaluate their outputs, and use them in ways that fit instructional aims, ethical responsibilities, and learners' varied needs. Teachers may have access to AI and still be uncertain about its accuracy, privacy implications, possible bias, accessibility, or appropriate place in a lesson. Responsible use therefore requires judgment about when a tool is helpful, when its output needs revision, and when direct human teaching is preferable.

The included studies did not measure readiness uniformly. Some examined knowledge of AI capabilities and limitations; others focused on perceived usefulness, ease of use, intention to adopt, confidence, self-efficacy, competence, or classroom practice. Technology-acceptance models appeared in research on pre-service teachers, where constructs such as performance expectancy, effort expectancy, social influence, and facilitating conditions were used to explain adoption intentions (Adigun et al., 2025; Amouri et al., 2025). Other work placed greater emphasis on AI literacy and the ability to evaluate or develop AI-supported learning materials (Lamacchia et al., 2025; Ulla et al., 2024). These measures describe different parts of readiness: willingness may encourage initial use, whereas literacy, applied competence, and institutional support are relevant to sustained and responsible implementation.

Readiness is shaped by the conditions in which teachers work, not only by their individual attitudes. Practical training, clear school expectations, reliable infrastructure, and opportunities to learn with colleagues can help teachers develop confidence. In contrast, inaccessible tools, unclear policies, limited technical assistance, and poor fit with learners' linguistic, cultural, or disability-related needs can prevent teachers from applying what they know. Research from several national settings has linked teacher-level factors with institutional conditions (Ali, 2024; Almarzouq et al., 2025; Fteiha et al., 2025). Readiness is therefore best examined as the interaction between teacher capability and the support available in the teaching environment.

Inclusive teaching involves identifying and reducing barriers to learning and participation rather than locating the difficulty only within an individual learner. Depending on context, this can include accessible resources, tasks at different levels, flexible pacing, multiple ways to represent information and participate, assistive support, and changes to the learning environment. AI applications may help teachers adapt text, produce examples at different levels, translate or simplify materials, provide feedback, support communication, or review participation patterns. For learners with disabilities or other special educational needs, some AI-enabled tools may also assist access, communication, autonomy, and engagement (Faiz & Fazil, 2024; Li et al., 2024; Sakowicz & Hamidi, 2026).

Personalized content is not, by itself, evidence of inclusion. A tool may vary the materials it produces yet remain incompatible with screen readers, overlook cultural or language differences, or generate biased outputs for groups poorly represented in its training data. Automated recommendations may also restrict opportunity if some learners are repeatedly directed toward less challenging work. Teachers therefore need to consider not only whether an output appears useful, but also how it affects access, participation, expectations, dignity,

and equity. This is one reason professional judgment remains necessary even when an application appears technically capable. This review examines readiness and inclusive practice together because each depends on the other. Teachers need sufficient knowledge and confidence to use AI, while inclusive teaching requires them to consider differentiation, accessibility, learner support, ethics, and the context in which an application will be used. A teacher may be skilled in inclusive pedagogy but lack the technology or institutional support needed to apply AI; another may be comfortable with AI but need further preparation in inclusive teaching. Considering both domains makes it possible to examine the conditions under which AI may reduce barriers, rather than treating adoption as a simple choice between acceptance and resistance.

Integrative Conceptual Framework

The integrative framework links three domains: (a) individual readiness—AI knowledge and literacy, practical competence, confidence/self-efficacy, attitudes, adoption intentions, and pedagogical judgment; (b) institutional conditions, infrastructure, accessible tools, professional learning, technical assistance, leadership, policy, and data-governance safeguards; and (c) inclusive enactment, differentiation, accessibility, accommodations, participation, assistive support, and teacher-led adaptation. Institutional support is treated as an enabling contextual condition, not as an individual readiness trait or a proven causal moderator. Primary studies provide some empirical associations among attitudes, knowledge, training, support, and reported practice; the integrated pathway from these conditions to sustained inclusive enactment is a synthesis-derived proposition that requires longitudinal and observational testing. This framework also guided extraction: readiness indicators were coded separately from contextual enablers and from reported or observed practice.

Research Questions

This review synthesized empirical studies published between January 2021 and the final database search on August 14, 2026. It addressed three research questions:

1. What does the evidence show about teachers' readiness for AI integration in inclusive education?
2. What inclusive classroom practices involving AI are reported in the literature?
3. What key findings, trends, barriers, and research gaps emerge across the included studies?

2. Materials and Methods

2.1. Research Design

This study employed a systematic literature review and used the PRISMA 2020 statement to guide reporting (Page et al., 2021). The review included quantitative, qualitative, and mixed-methods evidence; methodological quality was appraised using the Mixed Methods Appraisal Tool (MMAT) 2018 (Hong et al., 2018). The protocol was not prospectively registered. Eligibility criteria and the available search, screening, extraction, and appraisal records are

described below; where the original search logs were not supplied, the limits of reproducibility are stated rather than reconstructed.

2.2. Eligibility Criteria

A study was eligible when it met all of the following conditions: (a) participants were teachers, educators, faculty members, or pre-service teachers involved in teaching or field preparation; (b) the study examined a substantive AI component; (c) it reported evidence about teacher readiness, such as knowledge, skills, competence, self-efficacy, attitudes, confidence, willingness, or preparedness; (d) it addressed inclusion through learner diversity, accessibility, differentiated or personalized instruction, accommodations, participation, or support for diverse learners; (e) it took place in a formal educational setting; (f) it reported original empirical research using quantitative, qualitative, or mixed methods; (g) it was a peer-reviewed journal article written in English; (h) it was published between January 2021 and the final search date in 2026; and (i) its full text was accessible. During screening, an AI component was accepted when the paper explicitly described a digital system or application as artificial intelligence, generative AI, machine learning, AI-enabled or AI-powered technology, adaptive AI, or a comparable AI-based educational application. Inclusive education was interpreted as teaching or learner support involving disability, special educational needs, accessibility, accommodations, differentiated or personalized instruction, participation, learner diversity, or equitable access in a formal educational setting. A 2026 article was eligible only if it had been published online, released as an official advance-online article, or indexed in a searched source by the final search date. This study excluded reports focused only on non-teacher populations; technology studies without a substantive AI component; papers without relevant evidence on readiness or inclusive practice; research outside formal education; non-empirical publications; items that were not peer-reviewed journal articles; publications outside the date range or in languages other than English; reports without accessible full text; and studies that did not inform any review question. Retracted publications were also excluded.

2.3. Information Sources and Search Strategy

The review searched Google Scholar, DOAJ, ERIC, and Scopus on August 12–14, 2026. The reported yield was 34, 16, 13, and 15 records, respectively. The existing database-specific search strings are reproduced in Appendix B and used a four-concept structure: teacher/educator population; AI technology; readiness/acceptance; and inclusive/special education. The searches covered 2021–2026, with English-language eligibility applied during screening. The original search strings did not consistently include terms such as “machine learning,” “intelligent tutoring system,” “adaptive system,” “conversational agent,” or “assistive AI.” These terms are appropriate candidates for a supplemental search, but no such rerun is documented in the supplied records; therefore, the original retrieval totals and PRISMA flow are retained as historical results and are not represented as results of an expanded search. Exact query-by-query result counts, Google Scholar result-screening depth/stopping rule, and a complete search export were not available for verification. The four-source coverage is a limitation; additional sources such as Web of Science, PsycINFO, IEEE Xplore, and relevant education databases could improve coverage in a future update.

2.4. Study Selection

The three review-team members divided database searching and record extraction, with each member responsible for a database. To identify duplicates, we compared cleaned DOIs and normalized titles across the four sources. All unique records were then independently assessed by each reviewer against the predefined eligibility criteria. Reviewers made their initial decisions without seeing one another's assessments; decisions were compared only after all independent screening was complete. Records considered eligible or uncertain proceeded to full-text review. At that stage, reviewers recorded an Include or Exclude decision and a primary reason for each exclusion. The team discussed disagreements and uncertain cases until consensus was reached.

2.5. Data Extraction and Coding

A structured extraction form captured database source and Master ID; bibliographic details; country and setting; participant group and sample size; design; AI application; readiness indicators; inclusive-practice indicators; barriers and enablers; findings; recommendations; limitations; and relevance to each research question. One reviewer extracted information from the 28 full-text reports and two reviewers cross-checked the entries against the source files; disagreements were discussed to consensus. The manuscript records independent screening by three reviewers, but does not document a pilot of the screening or extraction forms, nor an initial agreement statistic. No agreement coefficient is reported because the underlying independent decision matrix was not provided. The Master ID mapping in Table 1 and Appendix C supports traceability, but the full source texts and a complete study-level extraction matrix were not included among the supplied files for this revision.

2.6. Methodological Quality Appraisal

MMAT 2018 criteria were applied according to the reported design. The two screening questions were considered for every study. Qualitative studies were assessed on methodological approach, data collection, derivation of findings, interpretation, and coherence; quantitative descriptive studies on sampling, representativeness, measurement, nonresponse, and analysis; and mixed-methods studies on rationale, integration, interpretation, divergence, and quality of component methods. Criterion-level judgments are reported as Yes, No, or Cannot tell; they are not summed into a numerical score. Cross-sectional surveys, predictive-correlational studies, and structural equation models were treated as quantitative descriptive designs for appraisal because the review assessed their sampling and measurement properties rather than causal identification. The available MMAT table is reproduced, not independently re-scored against the 25 original full texts, which were not supplied. Studies with several Cannot tell judgments were retained but interpreted cautiously; they were not assigned a lower numeric weight. A sensitivity-oriented reading indicates that the central pattern—favorable perceptions alongside limited direct evidence of sustained practice—does not depend on treating uncertain criteria as positive evidence, although study-level reappraisal is still required.

2.7. Synthesis Method

Results were synthesized narratively rather than pooled statistically. Coding was organized around the three research questions and grouped into

readiness, inclusive practice, barriers, enabling conditions, and evidence gaps. A study was counted for a theme when the reported abstract, methods, results, discussion, or conclusion contained an explicit finding or substantive discussion corresponding to the code; a study could contribute to more than one theme. Theme frequencies are therefore study-level coding counts, not prevalence estimates or effectiveness measures. The supplied materials do not include the complete codebook or study-by-theme matrix, so the counts are retained as reported and should be checked against the review team's master extraction workbook before resubmission. The synthesis drew on thematic approaches described by Braun and Clarke (2006) and Thomas and Harden (2008).

3. Results

3.1. Study Selection

The four sources returned 78 records: 34 from Google Scholar, 16 from DOAJ, 13 from ERIC, and 15 from Scopus. Five duplicates were removed (four DOI matches and one normalized-title match), leaving 73 records for title-and-abstract screening. Forty-five were excluded: 23 had no link to inclusive education, five lacked relevant teacher-readiness evidence or focused only on learners, and 17 were non-empirical or review publications. Twenty-eight full texts were assessed; three were excluded (one dissertation, one non-empirical review, and one retracted article), leaving 25 studies. The arithmetic is internally consistent ($78 - 5 = 73$; $73 - 45 = 28$; $28 - 3 = 25$). Figure 1 reflects these historical counts. Because no expanded search was actually rerun for this revision, the flow diagram is not updated with new records.

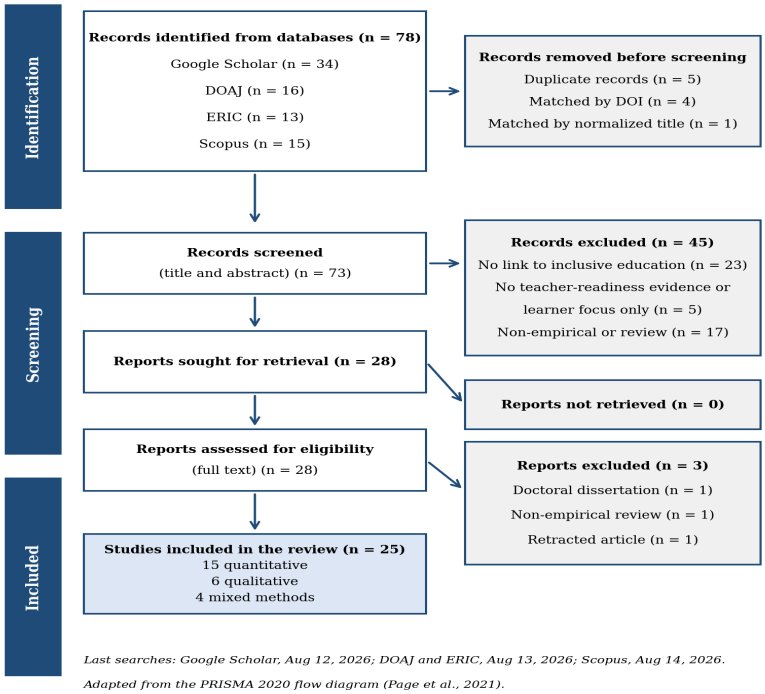


Figure 1. PRISMA 2020 Flow Diagram

3.2. Characteristics of Included Studies

The 25 included studies were published from 2024 to 2026: 15 were quantitative, six qualitative, and four mixed-methods. Samples ranged from six participants to 3,848. The included settings covered special education, inclusive schools, teacher preparation, and higher education across multiple national contexts. The distribution is heterogeneous and should not be read as a comparable country-level ranking. Most studies referred to AI generally; named applications included ChatGPT/generative AI, educational mobile applications, and accessibility tools such as text-to-speech. Table 1 summarizes the reported characteristics. Study-level verification against all original articles remains outstanding because the primary full texts and the review team's source-to-Master-ID verification log were not supplied.

Table 1. Characteristics of Included Studies and Methodological Quality Appraisal

Study ID	Year	Country	Design and Sample	Participants	AI Tool or Technology	Primary Focus	MMAT (Y/N/CT)
M001	2025	Saudi Arabia	Quantitative survey (n = 54)	Special education teachers (intellectual disabilities)	AI tools (general)	AI ability and training among special education teachers	3/0/2
M002	2024	Saudi Arabia	Quantitative survey (n = 100)	Teachers in inclusive primary and secondary classrooms	AI applications (general)	AI competencies in inclusive classrooms	2/1/2
M006	2025	UAE	Quantitative SEM (n = 342)	Inclusive-classroom teachers in government schools	AI applications and tools (general)	AI adoption, leadership, and teacher well-being	3/0/2
M008	2026	Jordan	Quantitative survey (n = 200)	Student teachers in field training	AI applications (general)	Inclusive field practice among student teachers	2/1/2
M009	2024	Saudi Arabia	Quantitative survey (n = 301)	Teachers of students with disabilities	AI in teaching (general)	Perceptions in disability education	1/0/4
M010	2026	Jordan/UAE	Mixed methods (n = 116; 80 survey, 36 focus group)	Teachers, special education specialists, and parents	AI and digital tools (general)	Readiness and inclusive education	0/0/5
M011	2025	Jordan	Quantitative survey (n = 137)	Special education teachers in inclusive schools	AI techniques (general)	Challenges in inclusive schools	3/1/1
M013	2024	Pakistan	Pilot survey (n = 50)	Special education teachers (children with ID)	AI educational mobile applications	AI mobile applications for learners with ID	2/0/3
M016	2025	Estonia	National survey (n = 3,848)	General education teachers	AI tools (general)	Readiness, usefulness, and individualized instruction	3/0/2

M020	2025	Italy	Mixed methods (n = 160)	Preschool to upper-secondary teachers, including support teachers	AI-based and accessibility tools (e.g., text-to-speech)	AI literacy and SEN practices	2/0/3
M021	2024	Iran	Qualitative (n = 20)	Educators and parents	AI-powered interventions for autism	AI interventions for autism	5/0/0
M022	2025	Thailand	Phenomenology (n = 6)	Filipino special education teachers working abroad	AI tools (general)	Inclusive AI use among foreign SPED teachers	2/0/3
M026	2025	Türkiye	Case study (n = 54)	Teachers of students with SEN	AI (general)	Teacher views on AI for SEN	5/0/0
M027	2026	United States	Qualitative (n = 7)	Special education teachers	AI-enabled technologies (e.g., generative AI and chatbots)	Accessibility and professional development	5/0/0
M028	2025	Pakistan	Quantitative survey (n = 300)	Special education teachers	AI (general)	Knowledge and instructional strategies	2/0/3
M033	2025	Jordan	Quantitative survey (n = 351)	Special education teachers	AI applications (general)	Benefits, accessibility, and concerns	2/1/2
M034	2026	Philippines	Phenomenology (n = 10)	Special education teachers	AI tools (general)	Teacher-mediated inclusive AI integration	4/0/1
M040	2024	Philippines	Qualitative (n = 14)	University language teachers	Generative AI (ChatGPT)	GenAI in inclusive language education	5/0/0
M041	2025	Nigeria	Quantitative SEM (n = 411)	Pre-service teachers	AI tools (general)	Pre-service teachers' adoption intention	2/0/3
M042	2025	Morocco	Mixed methods (n = 164)	Pre-service teachers	AI (general)	AI acceptability for ADHD instruction	0/0/5
M045	2025	Kuwait	Quantitative survey (n = 96)	Special education teachers	AI applications (general)	AI use, importance, and barriers	3/0/2
M069	2024	Not specified	Quantitative survey (n = 270)	202 education-course college students (pre-service teachers) and 68 staff members	AI (general)	Teacher education, inclusion, and digital literacy	2/0/3
M070	2024	Latvia	Mixed methods (n = 240)	Pre-service teachers	AI tools (general)	Benefits and challenges among pre-service teachers	0/0/5
M075	2025	UAE	Quantitative SEM (n = 161)	In-service K–12 general and special education teachers	AI (general)	Knowledge, attitudes, and classroom practices	3/1/1
M078	2026	Philippines	Quantitative predictive (n = 213)	Higher education faculty	AI (general)	Faculty readiness for inclusive AI pedagogy	3/0/2

Note. *MMAT = Mixed Methods Appraisal Tool; Y = Yes; N = No; CT = Cannot tell; SEM = structural equation modeling; SEN = special educational needs; ID = intellectual disability; SPED = special education; GenAI = generative artificial intelligence. MMAT values are presented in the order Yes/No/Cannot tell. These are criterion-level appraisal counts and should not be interpreted as composite quality scores.*

3.3. Evidence Categories and Interpretation

Findings were interpreted using five evidence categories. The supplied manuscript does not include a complete study-level matrix assigning every study to these categories; therefore, no unsupported category frequencies are reported.

Table 2. Evidence Categories Used to Interpret AI-Related Findings

Evidence Category	What the Evidence Supports	Interpretive Boundary
Attitudes and perceived usefulness	Beliefs about AI's value, utility, or acceptability	Does not establish intention, actual use, or effectiveness.
Adoption intentions	Willingness, plans, or stated intention to use AI	Does not establish implementation.
Self-reported use	Teachers' accounts of their own AI use or adaptation	Does not equal observed practice and may be affected by recall or social-desirability bias.
Observed teaching or analyzed artifacts	Direct observation, lesson materials, or documented instructional artifacts	Supports claims about enacted practice, but not automatically learner effects.
Independently measured learner outcomes	Learner outcomes assessed independently of teacher perceptions	Supports outcome claims only when measures and designs are appropriate; causal claims still depend on design.

Note. *Categories describe evidence sources and levels; they are not mutually exclusive study counts.*

3.4. Teachers' Readiness for AI Integration in Inclusive Education

Across the evidence base, teachers and pre-service teachers generally recognized the potential value of AI. Studies reported favorable perceptions of usefulness, openness to adoption, and expectations that AI could improve planning, teaching efficiency, personalization, and engagement. However, favorable attitudes did not consistently indicate practical readiness. Saudi special education teachers reported lower competence in AI than in general educational technology (Ali, 2024), while another Saudi study found mostly neutral perceptions and differences associated with teaching experience (Alsudairy & Eltantawy, 2024). In Kuwait, the contrast was particularly pronounced: perceived

importance was high but reported classroom use was very low and obstacles were rated very high (Almarzouq et al., 2025). A similarly wide gap between favorable perceptions and unresolved concerns appeared in Jordan, where special education teachers rated AI's benefits highly yet also reported substantial accessibility and implementation concerns (Shaheen & Zanoon, 2025), and in Türkiye, where teachers welcomed AI's potential for students with special educational needs while emphasizing that competence and resource gaps still constrained integration (Özbilen et al., 2025).

The readiness-to-practice gap also appeared among pre-service teachers and higher education faculty. Student teachers reported positive attitudes and relatively high use of AI applications, but their inclusive teaching practices remained moderate (Alsbou et al., 2026). At the University of Latvia, fewer than half of pre-service teachers used AI, even though many recognized its potential contribution to inclusion (Kalniņa et al., 2024). Philippine faculty reported high readiness across AI literacy, usefulness, ease of use, inclusive attitudes, and institutional support, yet these dimensions did not significantly predict differentiated inclusive teaching readiness (Aliazas et al., 2026). Together, these findings suggest that declared readiness should not be treated as equivalent to demonstrated classroom integration.

3.4.1. Pedagogical Competence and Readiness

AI literacy, confidence, and perceived competence were recurring readiness indicators. The national Estonian study found that perceived usefulness, confidence, and relevance supported readiness and adoption intentions, while AI anxiety and limited training constrained implementation (Granström & Oppi, 2025). In Nigeria, effort expectancy directly predicted pre-service teachers' intention to use AI in inclusive classrooms. Technological self-efficacy did not directly predict intention but influenced the effects of performance expectancy and social influence (Adigun et al., 2025). A Moroccan TAM2 study similarly identified perceived usefulness as the strongest predictor of AI acceptability, followed by ease of use, voluntariness, and subjective norms (Amouri et al., 2025). Training repeatedly differentiated more prepared teachers from less prepared teachers. Teachers with AI training reported stronger perceptions of AI-supported outcomes (Aldehami, 2025), while higher technology experience was associated with stronger use among student teachers (Alsbou et al., 2026). Across special education studies, participants requested practical professional development that addressed not only technical operation but also pedagogical adaptation, ethics, accessibility, and classroom decision-making.

3.4.2. Individual and Institutional Readiness

Readiness was not solely an individual characteristic. Infrastructure, leadership, policy, technical support, and institutional expectations influenced whether teachers could act on their knowledge and attitudes. In Jordan and the UAE, participants in the UAE reported stronger institutional readiness, training, and policy support (Altakhaineh et al., 2026). The UAE structural equation model further showed that attitudes significantly predicted AI-related practice, while knowledge influenced practice indirectly through attitudes (Fteiha et al., 2025).

Studies from Jordan, Kuwait, the Philippines, and other settings consistently identified weak infrastructure and insufficient support as barriers. Thus, teacher readiness is better understood as the interaction of personal capability and institutional capacity. Leadership support did not always translate into stronger outcomes: a study of primary inclusive-classroom teachers found that AI use related to engagement and a sense of accomplishment, but leadership support did not consistently strengthen these relationships (Almaki et al., 2025). Similarly, special education teachers in Jordanian public and private schools reported substantial challenges using AI, with qualification, experience, and school type explaining much of the variation (Beirat et al., 2025). Readiness was most consistently expressed through favorable attitudes, perceived usefulness, intention, confidence, and self-reported knowledge. Practical competence and sustained classroom use were less consistently demonstrated. This pattern was evident in the contrast between lower AI competence and stronger general technology competence reported by Ali (2024), and between the high perceived importance of AI and very low reported use found by Almarzouq et al. (2025). The evidence therefore supports a multidimensional description of readiness rather than a single ready/not-ready classification.

3.5. Direct Instructional Support: Personalization and Differentiation

The most common inclusive application of AI was personalization. Teachers described using or valuing AI for adapting content, adjusting pace, generating differentiated materials, providing immediate feedback, and supporting individual learning pathways. Special education teachers reported that AI mobile applications could increase attention, motivation, autonomy, and confidence among children with intellectual disabilities (Faiz & Fazil, 2024). Teachers in qualitative studies described AI as an extension of professional expertise that could help them respond to learner variability rather than as an autonomous substitute for instruction (Singcay et al., 2026). In language education, Philippine university teachers associated generative AI with tailored learning, participation, confidence, simulations, and real-time feedback (Ulla et al., 2024). Italian teachers also reported growing attention to personalization and accessibility, although many remained at a functional rather than reflective level of AI use (Lamacchia et al., 2025). These patterns indicate that AI-supported differentiation is widely recognized, but the depth and pedagogical sophistication of implementation vary considerably. In Pakistan, AI integration was linked to special education teachers' knowledge and instructional strategies and was seen as a way to narrow opportunity gaps between urban and rural learners (Sajjad et al., 2025), while a study situated in teacher education more broadly found that AI was perceived to support inclusive and personalized approaches to varied learning styles alongside digital-literacy development (Zhang & Zhang, 2024).

3.6. Assistive and Accessibility-Oriented AI Technologies

Accessibility was central to studies involving learners with disabilities, autism, ADHD, intellectual disabilities, and other special educational needs. Teachers valued AI-powered interventions for increasing engagement and personalized support among autistic learners, while also reporting technical problems, privacy concerns, and training needs (Li et al., 2024). Special

education teachers in the United States described varied uses of AI-enabled technologies but noted continuing barriers for learners with speech and communication disabilities, as well as concerns about algorithmic bias (Sakowicz & Hamidi, 2026). Moroccan pre-service teachers emphasized differentiated instruction for learners with ADHD and called for AI tools designed specifically for special educational needs (Amouri et al., 2025). Across studies, inclusion was not limited to disability support. It also involved language assistance, access to global knowledge, learner participation, equitable feedback, and flexible pathways. However, several studies discussed inclusive potential more strongly than actual inclusive practice. This reinforces the need to distinguish aspirational claims about AI from documented classroom strategies.

3.7. Teacher-Mediated and Human-Centered Integration

A consistent finding was the need to preserve teacher professional judgment. AI was most defensible when teachers selected, interpreted, modified, and contextualized its outputs. The phenomenological study of Philippine special education teachers identified teacher-mediated integration as a central theme and showed that time savings coexisted with frustration over weak infrastructure, insufficient training, and limited cultural relevance (Singcay et al., 2026). Similarly, studies involving teachers and parents emphasized the need to balance technological support with human interaction (Altakhaineh et al., 2026). Inclusive AI practice therefore requires both technological flexibility and relational, ethical, and pedagogical oversight. A phenomenological study of foreign special education teachers in Thailand similarly described a SPARK pattern of scaffolding, participation, personalization, and accessibility, in which AI supported individualized instruction only when teachers actively navigated ethical, cultural, and resource-related barriers (Limosnero & Siy, 2025). The most frequently reported practices were personalized or differentiated materials, immediate feedback, language or communication assistance, accessibility support, learner engagement, and teacher adaptation of AI outputs. Ulla et al. (2024) documented teachers' perceptions of tailored learning, participation, confidence, and real-time feedback, while Singcay et al. (2026) described teacher-mediated differentiation and learner-responsive design. However, most studies reported perceived or self-described practices; comparatively few observed lessons, analyzed teacher-created materials, or measured learner participation and outcomes directly.

3.8. Major Enablers and Barriers

Training and professional development was coded in 21 of 25 studies; accessibility, inclusion, and disability support in 24; and personalization/differentiation in 18. These are counts of included reports in which a theme was identified under the review's coding approach. They do not indicate how many teachers implemented a practice, the proportion of classrooms affected, or whether an intervention was effective. A study could contribute to multiple themes. Because the complete study-by-theme matrix was not provided, the exact application of the coding threshold cannot be independently audited here. The principal barriers were insufficient training, weak infrastructure, limited access to appropriate AI tools, privacy and data-governance concerns, algorithmic

bias, uncertainty about ethical use, and mismatches between generic systems and specific learner needs. Technical problems, privacy concerns, and training needs were prominent in teachers' experiences with AI-supported interventions for autistic learners (Li et al., 2024), while accessibility and algorithmic-bias concerns were reported by special education teachers using AI-enabled technologies (Sakowicz & Hamidi, 2026). A recurring perception-to-use gap was also evident: teachers often valued AI while reporting limited practice, moderate inclusive implementation, or inadequate confidence.

Table 3. Frequency of Cross-Study Themes

Theme	Number of Studies
AI literacy, knowledge, and competence	17
Attitudes, acceptance, intention, and self-efficacy	15
Training and professional development	21
Institutional, leadership, policy, and infrastructure support	10
Personalization and differentiated instruction	18
Accessibility, inclusion, and disability support	24
Learner engagement, participation, and confidence	6
Ethics, privacy, bias, and responsible use	11
Readiness-to-practice or perception-to-use gap	11
Teacher well-being, workload, and classroom management	3

Note. *Frequencies represent the number of included studies in which each theme was identified through the review's coding and synthesis process. Studies could contribute to multiple themes; therefore, the counts are not mutually exclusive and should not be interpreted as measures of prevalence, implementation rates, or intervention effectiveness.*

3.9. Methodological Trends and Evidence Gaps

The evidence base was dominated by cross-sectional surveys and self-reported perceptions. These designs were appropriate for describing emerging attitudes and readiness, but they could not establish causal relationships or demonstrate how AI was used during actual instruction. Qualitative studies provided richer descriptions of teacher experience, but many involved small and geographically localized samples. Mixed-methods studies strengthened interpretation through integration, although some used limited open-ended components rather than extended classroom-based inquiry. Five research gaps were evident. First, few studies directly observed AI-supported inclusive teaching. Second, learner outcomes were usually reported through teacher perceptions rather than independent measures. Third, longitudinal and

intervention studies were scarce, limiting understanding of how readiness changes after professional development or sustained AI use. Fourth, comparative research across school types, disability groups, regions, and resource levels was limited. Fifth, studies rarely examined how institutional readiness, ethical governance, accessible design, and teacher competence jointly influence equitable outcomes.

3.10. Methodological Quality of the Evidence

The reported MMAT judgments suggest that qualitative studies generally showed coherence between research questions, data, and interpretation, while quantitative studies more often raised questions about representativeness, nonresponse, and measurement. Mixed-methods reporting varied in how clearly integration and divergent findings were explained. These observations are descriptive of the existing criterion-level table, not a fresh appraisal of the primary reports. Studies with substantial Cannot tell judgments were retained but interpreted conservatively; the review did not calculate an aggregate MMAT score or apply numerical weights. The broad conclusions are most secure as descriptions of reported perceptions and themes, and least secure when interpreted as evidence of classroom effectiveness or learner impact.

4. Discussion

4.1. Teacher Readiness Is Multidimensional and Context-Dependent

The synthesis indicates that readiness is not a single acceptance construct. Perceived usefulness concerns whether teachers believe AI may help; effort expectancy concerns perceived ease; adoption intention concerns willingness or plans; AI literacy concerns knowledge of capabilities and limitations; self-efficacy concerns perceived capability; applied competence concerns the ability to select, evaluate, adapt, and use tools in instruction; and pedagogical judgment concerns whether a tool is appropriate for particular learners and aims. These constructs overlap but are not interchangeable. The included technology-acceptance studies primarily inform willingness and intention, whereas AI-literacy and qualitative studies provide evidence about knowledge, confidence, and teacher mediation. Cross-study comparisons must therefore respect differences in operationalization rather than treating every positive response as equivalent readiness.

Professional development should be understood as a practical capability-building process rather than simple exposure to AI. Relevant content includes understanding AI capabilities and limitations, checking output accuracy and bias, designing differentiated and accessible materials, protecting learner data, planning classroom use, and reflecting on learner response. The studies associate training opportunities with more favorable readiness or reported practice, but the supplied evidence does not establish that a particular training model causes sustained improvement. Longitudinal and intervention research is needed to test that pathway. The evidence also differs by participant group and educational setting. Pre-service teachers' acceptance and intention findings should not be equated with the classroom experience of in-service or special

education teachers. Higher education faculty operate under different instructional and institutional conditions from primary and secondary teachers. Qualitative studies in disability-related contexts provide detailed accounts of accessibility, communication, and teacher mediation, but small localized samples limit transferability. Quantitative surveys offer broader snapshots but often depend on self-report and sampling procedures whose representativeness is uncertain. The included evidence does not support country rankings or a universal readiness profile. Taken together, the evidence supports a qualified answer to RQ1: attitudes and perceived usefulness were often favorable, while applied competence, confidence, institutional support, and sustained use were unevenly documented. The distinction is important because acceptance may precede use but cannot establish the capacity to enact inclusive instruction responsibly.

4.2. Inclusive Practice Depends on Teacher Mediation

The findings show that AI-supported inclusion was reported mainly through personalization, differentiated instruction, feedback, accessibility, participation, and assistance for learners with disabilities or other diverse needs. Ulla et al. (2024) illustrated how GenAI could support tailored learning, participation, confidence, and feedback in language classrooms, while Singcay et al. (2026) emphasized teacher-mediated differentiation and learner-responsive design in special education. These studies support the interpretation that inclusion is produced through pedagogical decisions, not through the mere presence of an AI tool. Reported practices should be interpreted according to their evidence source. Statements about usefulness or possible personalization are evidence of perceived potential; stated intention is evidence of willingness; teacher accounts are evidence of self-reported use; observations or analyzed lesson artifacts would support claims about enacted practice; and independently assessed learner measures would be needed to support claims about learner effects. The supplied synthesis describes relatively few studies with direct observation or independent outcome assessment. Consequently, the findings support claims about reported practice and perceived utility more strongly than claims about effectiveness.

4.3. Enablers, Barriers, and Evidence Gaps Require System-Level Action

The main enablers and barriers operate at more than one level. Individual teachers need AI literacy, applied competence, confidence, and pedagogical judgment. Institutions need reliable connectivity, accessible software, technical assistance, time for professional learning, leadership support, clear procurement rules, and data-governance safeguards. These conditions are best treated as context that enables or constrains enactment, not as a single undifferentiated readiness score. The primary studies report associations and experiences; the integrated proposition that these factors jointly enable sustained inclusive practice is derived from the synthesis and requires testing. The methodological pattern also limits the strength of the conclusions. Most studies were cross-sectional and relied on teacher self-report; few observed AI-supported lessons, measured learner outcomes independently, or tested professional-development effects longitudinally. Çelik (2023) likewise recommended multiple forms of evidence beyond self-report, while Nazaretsky et al. (2022) demonstrated the value of examining a concrete

professional-development intervention. The answer to RQ3 therefore includes a clear research priority: future work should connect teacher readiness with observable inclusive practice and independently measured participation, access, and learning outcomes across diverse and resource-constrained settings.

4.4. Integrated Interpretation

Favorable attitudes may encourage initial exploration; AI literacy and applied competence may support responsible selection and adaptation; institutional conditions may make implementation feasible; and teacher-mediated enactment may influence accessibility and participation. Evidence for individual links varies across the included studies, and the full sequence has not been tested longitudinally. This distinction is central to the review's contribution: readiness is more than acceptance, but the route from readiness to equitable learner outcomes remains an empirical question. The review also clarifies the difference between AI availability and inclusive AI readiness. Access to a platform does not demonstrate that teachers can use it competently, and personalization does not establish that a practice is inclusive. Evidence of readiness should include reviewed teaching materials, classroom implementation, reflection on ethical and accessibility concerns, and effects on participation or learning. Evidence of inclusion should show that barriers were reduced without narrowing expectations, weakening relationships, or creating new forms of exclusion. The review therefore supports a human-centered and system-aware position: AI should extend teacher capacity rather than replace professional judgment, and implementation should be evaluated according to equitable access, meaningful participation, learner dignity, and independently demonstrated educational benefit.

5. Conclusions

Across the 25 included studies, teachers and pre-service teachers were often receptive to AI and identified potential uses in personalization, differentiation, accessibility, feedback, and participation. However, the evidence more consistently captures attitudes, intentions, and self-reported experiences than observed classroom enactment or independently measured learner outcomes. Readiness is therefore best understood as an interaction among AI literacy, applied competence, pedagogical judgment, ethical responsibility, and enabling institutional conditions. The review does not establish that AI applications consistently improve learning or inclusion. It indicates that responsible integration requires practical professional learning, accessible infrastructure, transparent governance, and teacher mediation. Future studies should test the proposed readiness-to-enactment pathway using longitudinal, observational, intervention, and learner-outcome designs.

6. Recommendations

For teacher educators and professional-development providers, preparation should include practical AI-literacy tasks, output verification, lesson planning, accessible and differentiated material design, privacy, bias, and ethical

decision-making. Where feasible, training should include supervised application and review of teaching artifacts; the present evidence supports this as a reasoned recommendation, not as a proven intervention effect.

For school administrators and education leaders, readiness assessment should cover connectivity, devices, accessible applications, technical support, protected time for professional learning, procurement criteria, and data governance. Policies should clarify permitted use, accountability, privacy, and teacher authority to review or reject AI outputs. These recommendations respond to reported infrastructure, policy, and support barriers.

For developers and technology providers, inclusive design should include accessibility testing with diverse users, transparent data practices, culturally and linguistically appropriate outputs, clear disclosure of limitations, and teacher controls to review, modify, or override automated recommendations. Claims of inclusion should be evaluated with users rather than inferred from personalization features alone.

Future studies should use longitudinal, intervention, and implementation designs to determine how readiness develops and whether professional learning changes classroom practice. Researchers should combine surveys with observation, teacher artifacts, usage data, learner perspectives, and independently measured outcomes. More evidence is also needed from public schools, rural and low-resource settings, and contexts where multiple forms of diversity intersect. Comparative research should examine whether AI readiness and inclusive practice differ by school type, teaching role, disability category, language, subject, and access to institutional support. Finally, studies should investigate how teacher judgment, accessible design, ethics, and institutional governance operate together rather than as isolated variables.

7. Limitations

This review has limitations at both the review and primary-study levels. Review-level limitations include the use of four sources, variable Google Scholar retrieval, unavailable query-level retrieval logs and stopping-rule documentation, search strings that did not consistently include all relevant AI synonyms, English-language eligibility, and lack of prospective registration. The search ended on August 14, 2026, so later publications were not captured. Web of Science, PsycINFO, IEEE Xplore, and grey-literature sources were not searched. The supplied materials do not contain the full search export, source PDFs for all 25 studies, complete extraction matrix, or codebook; consequently, the present editorial revision cannot independently verify all bibliographic records, participant descriptions, MMAT judgments, or theme coding. Primary-study limitations include cross-sectional designs, self-report measures, localized or convenience samples, heterogeneous constructs, and limited direct observation or independent learner-outcome measurement. These factors restrict generalizability, causal inference, and claims about effectiveness. The review was not prospectively registered, and no formal certainty assessment such as GRADE

or GRADE-CERQual was conducted. The PRISMA counts are arithmetically consistent but remain the original reported counts, not an updated search result.

Supplementary Details

Supplementary Materials & Data availability statement: The data that support the findings of this study are available from the corresponding author upon reasonable request. Due to privacy and ethical restrictions, the raw data are not publicly available.

Author Contributions:
Sherlyn Mae P. Alboroto led the review and, together with Erlisa M. Apura and Bernard John Abad, conducted the database searches, record screening, data extraction, and methodological appraisal. Marleonie M. Bauyot critically reviewed the work and provided critique and feedback on the manuscript.

Funding:
This research received no external funding.

Institutional Review Board Statement:
Not applicable

Informed Consent Statement:
Not applicable

Acknowledgments:
The authors express their gratitude to their research adviser for the guidance every step of the way, PhDEL classmates for the motivation to pursue this study, and most of all to our Almighty God for the strength and provisions until the completion of this study.

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

Disclosure Statement:
AI tools such as Grammarly were used solely for grammar refinement and language polishing. All AI-assisted content was thoroughly reviewed and validated by the authors to ensure accuracy and integrity.

References

Adigun, O. T., Tijani, F. A., Haihambo, C. K., & Enock, S. L. (2025). Understanding pre-service teachers' intention to adopt and use artificial intelligence in Nigerian inclusive classrooms. Frontiers in Education. https://doi.org/10.3389/feduc.2025.1519472

Aldehami, S. (2025). Exploring the Perspectives of Teachers of Students with Intellectual Disabilities Toward the Impact of Using Artificial Intelligence Tools on Their Students' Academic Performance. Cultura: International Journal of Philosophy of Culture and Axiology, 22(5s), 139–160. https://culturajournal.com/submissions/index.php/ijpca/article/view/2149/2143

Ali, A. (2024). Teachers' Competencies in Implementing Technologies and Artificial Intelligence Applications to Teach Students with Disabilities in Inclusive Classrooms in Saudi Arabia. Eurasian Journal of Educational Research. https://doi.org/10.14689/ejer.2024.112.10

Aliazas, J. V., Andrade, R., Del Rosario, A. L., Panoy, J. F., Pasia, A., & Madrideo, J. (2026). AI-Ready but Inclusion-Aware? Faculty Readiness to Use Artificial Intelligence for Inclusive Pedagogy in Philippine Higher Education Institutions. International Journal of Special Education, 41(9s), 1042–1052.

Almaki, S., Mafarja, N., & Mansoori, A. (2025). Teacher well-being and use of artificial intelligence applications and tools: Moderation effects of leadership support in inclusive classroom. STEM Education. https://doi.org/10.3934/steme.2025006

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. https://doi.org/10.22521/edupij.2025.17.407

Alsbou, M. K. K., Al Nasarat, S. A., Al-Bdour, W. M., & Al Maajawlah, R. A. A. (2026). Employing Artificial Intelligence Applications to Support Inclusive Learning Practices among Student Teachers in Teacher Preparation Programs During Field Training. International Journal of Special Education, 41(5s), 641–659. https://www.internationalsped.com/index.php/ijse/article/view/3008

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(2), 95–112. https://doi.org/10.6000/2292-2598.2024.12.02.5

Altakhaineh, A. R. M., Alkhatib, R. N., & Awad, T. (2026). Integrating artificial intelligence to enhance inclusive education for students with special needs in Jordan and the UAE: Perspectives of teachers and parents. Acta Psychologica. https://doi.org/10.1016/j.actpsy.2026.106252

Amouri, H., Haroud, S., Ouchaouka, L., & Saqri, N. (2025). Acceptability of artificial intelligence in inclusive education: a TAM2-based study among preservice teachers. Frontiers in Artificial Intelligence. https://doi.org/10.3389/frai.2025.1616327

Beirat, M., Algolaylat, A., & Al-Makhzoomy, A. (2025). Challenges Special Education Teachers Encounter in Using Artificial Intelligence Techniques to Teach Students with Disabilities in Inclusive Schools. Dirasat: Educational Sciences. https://doi.org/10.35516/edu.2025.11154

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Çelik, I. (2023). Towards Intelligent-TPACK: An empirical study on teachers' professional knowledge to ethically integrate artificial intelligence (AI)-based tools into education. Computers in Human Behavior, 138, Article 107468. https://doi.org/10.1016/j.chb.2022.107468

Faiz, M. A., & Fazil, H. (2024). The Benefits of Artificial Intelligence Mobile Applications in Improving Learning for Children with Intellectual Disabilities: A Pilot Study Perspectives from Special Education Teachers. Al-Mahdi Research Journal, 5(5), 302–313. https://ojs.mrj.com.pk/index.php/MRJ/article/download/469/549/1621

Fteiha, M., Al-Rashaida, M., & Ghazal, M. (2025). General and special education teachers' readiness for artificial intelligence in classrooms: A structural equation modeling study of knowledge,

attitudes, and practices in select UAE public and private schools. PLOS ONE. https://doi.org/10.1371/journal.pone.0331941

Granström, M., & Oppi, P. (2025). Assessing teachers' readiness and perceived usefulness of AI in education: an Estonian perspective. Frontiers in Education. https://doi.org/10.3389/feduc.2025.1622240

Hong, Q. N., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., Dagenais, P., Gagnon, M.-P., Griffiths, F., Nicolau, B., O'Cathain, A., Rousseau, M.-C., & Pluye, P. (2018). The Mixed Methods Appraisal Tool (MMAT) version 2018 for information professionals and researchers. Education for Information, 34(4), 285–291. https://doi.org/10.3233/EFI-180221

Kalniņa, D., Nīmante, D., & Baranova, S. (2024). Artificial intelligence for higher education: benefits and challenges for pre-service teachers. Frontiers in Education. https://doi.org/10.3389/feduc.2024.1501819

Lamacchia, M., Facciorusso, F., & Carruba, M. C. (2025). Teachers, Artificial Intelligence, and Special Educational Needs: Knowledge, Practices, and Operational Awareness in the Italian School System. Journal of Inclusive Methodology and Technology in Learning and Teaching, 5(3). https://www.inclusiveteaching.it/index.php/inclusiveteaching/article/view/421

Li, G., Zarei, M. A., Alibakhshi, G., & Labbafi, A. (2024). Teachers and educators' experiences and perceptions of artificial-powered interventions for autism groups. BMC Psychology. https://doi.org/10.1186/s40359-024-01664-2

Limosnero, V. M. B., & Siy, B. C., Jr. (2025). Teaching with AI in Special Education: The Potential, Difficulties, and Ethical Issues from the Perspective of Foreign Teachers in Thailand. International Journal of Advanced Multidisciplinary Studies, 5(6), 655–667. https://www.ijams-bbp.net/archive/vol-5-issue-6/teaching-with-ai-in-special-education-the-potential-difficulties-and-ethical-issues-from-the-perspective-of-foreign-teachers-in-thailand/

Nazaretsky, T., Ariely, M., Cukurova, M., & Alexandron, G. (2022). Teachers' trust in AI-powered educational technology and a professional development program to improve it. British Journal of Educational Technology, 53(4), 914–931. https://doi.org/10.1111/bjet.13232

Özbilen, F. M., Günay, 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. Különleges Bánásmód Interdiszciplináris folyóirat [Special Treatment Interdisciplinary Journal], 11(3), 115–128. https://doi.org/10.18458/KB.2025.3.115

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. BMJ, 372, n71. https://doi.org/10.1136/bmj.n71

Sajjad, N., Batool, S., & Amjad, F. (2025). Utilizing Artificial Intelligence to Improve Teachers' Knowledge and Instructional Strategies in Special Education Setting. Journal of Social Sciences Research & Policy, 3(1), 153–164.

Sakowicz, M., & Hamidi, F. (2026). Perspectives of special education teachers on AI-enabled technologies: accessibility, inclusion, and professional development needs. Universal Access in the Information Society, 25, Article 106. https://doi.org/10.1007/s10209-026-01370-3

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: Testing, Psychometrics, Methodology in Applied Psychology, 32(4), 1673–1679.

Singcay, S., Gulangayan, M. T., Banico, G. M. L., Aguilos, M., Camacho, G. A., Cece, S., Amante, J., Banua, Ma. K. A., & Naparan, G. B. (2026). Teacher-Mediated Integration of Artificial Intelligence Tools in Special Education: A Phenomenological Study of Inclusive Classroom Practices. Journal of Education and Learning Reviews, 3(3), e3028. https://doi.org/10.60027/jelr.2026.e3028

Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. BMC Medical Research Methodology, 8, Article 45. https://doi.org/10.1186/1471-2288-8-45

Ulla, M. B., Advincula, M. J. C., Mombay, C. D. S., Mercullo, H. M. A., Nacionales, J. P., & Entino-Señorita, A. D. (2024). How can GenAI foster an inclusive language classroom? A critical language pedagogy perspective from Philippine university teachers. Computers and Education: Artificial Intelligence. https://doi.org/10.1016/j.caeai.2024.100314

Zhang, J., & Zhang, Z. (2024). AI in teacher education: Unlocking new dimensions in teaching support, inclusive learning, and digital literacy. Journal of Computer Assisted Learning. https://doi.org/10.1111/jcal.12988

Appendices

APPENDIX A. FULL TEXT EXCLUSIONS

Table A1. Reports excluded after full-text assessment

Master ID	Report	Primary Exclusion Reason
M015	Gonzalez (2026), Artificial Intelligence in Special Education	Doctoral dissertation; not a peer-reviewed journal article.
M019	Julien (2024), How Artificial Intelligence Impacts Inclusive Education	Non-empirical literature review.
M068	Yao and Wang (2024), Factors Influencing Pre-Service Special Education Teachers' Intention Toward AI	Retracted publication; excluded from valid evidence synthesis.

Note. *Reports were excluded based on the stated eligibility criteria and publication status.*

APPENDIX B. COMPLETE DATABASE SEARCH STRATEGIES

The year range was restricted to 2021-2026 in all four sources. No language restriction was applied during searching; the English-language criterion was applied during eligibility screening.

Scopus

Last searched: August 14, 2026

TITLE-ABS-KEY((teacher* OR educator* OR faculty OR "pre-service teacher*" OR "preservice teacher*" OR "special education teacher*") AND ("artificial intelligence" OR "generative AI" OR GenAI OR ChatGPT OR "AI-enabled" OR "AI-powered") AND (readiness OR preparedness OR competenc* OR knowledge OR skill* OR self-efficacy OR attitude* OR confidence OR willing* OR acceptance OR adoption OR intention*) AND ("inclusive education" OR "inclusive classroom*" OR "inclusive pedagogy*" OR "special education" OR disability* OR accessibility OR "diverse learner*" OR differentiation OR "differentiated instruction" OR personalization OR "personalized learning" OR accommodation*)) AND PUBYEAR > 2020 AND PUBYEAR < 2027

ERIC

Last searched: August 13, 2026

(teacher* OR educator* OR faculty OR "pre-service teacher*" OR "preservice teacher*" OR "special education teacher*") AND ("artificial intelligence" OR "generative AI" OR GenAI OR ChatGPT OR "AI-enabled" OR "AI-powered") AND (readiness OR preparedness OR competence OR competency OR knowledge OR skills OR self-efficacy OR attitudes OR confidence OR willingness OR acceptance OR adoption OR intention) AND ("inclusive education" OR "inclusive classroom" OR "inclusive pedagogy" OR "special education" OR disability OR disabilities OR accessibility OR "diverse learners" OR differentiation OR "differentiated instruction" OR personalization OR "personalized learning" OR accommodations)

DOAJ

Last searched: August 13, 2026

(teacher* OR educator* OR faculty OR "pre-service teacher*" OR "preservice teacher*" OR "special education teacher*") AND ("artificial intelligence" OR "generative AI" OR GenAI OR ChatGPT OR "AI-enabled" OR "AI-powered") AND (readiness OR preparedness OR competence OR competency OR knowledge OR skills OR self-efficacy OR attitudes OR confidence OR willingness OR acceptance OR adoption OR intention) AND ("inclusive education" OR "inclusive classroom" OR "inclusive pedagogy" OR "special education" OR disability OR disabilities OR accessibility OR "diverse learners" OR differentiation OR "differentiated instruction" OR personalization OR "personalized learning" OR accommodations)

Google Scholar

Last searched: August 12, 2026

1. "artificial intelligence" teacher readiness "inclusive education"
2. "artificial intelligence" teacher competence "special education"
3. "Artificial intelligence" teacher self-efficacy "inclusive classroom"
4. "Generative AI" teachers "inclusive education"
5. ChatGPT teachers "inclusive classroom"
6. "AI-powered" teachers accessibility education

APPENDIX C. CRITERION-LEVEL MMAT APPRAISAL

Table C1. MMAT 2018 criterion-level judgments for the 25 included studies

ID	Study	Design Category	S1	S2	C1	C2	C3	C4	C5
M001	Aldehami (2025)	Quantitative descriptive	Yes	Yes	Yes	CT	Yes	CT	Yes
M002	Ali (2024)	Quantitative descriptive	Yes	Yes	Yes	CT	CT	No	Yes
M006	Almaki et al. (2025)	Quantitative descriptive	Yes	Yes	Yes	CT	Yes	CT	Yes
M008	Alsbou et al. (2026)	Quantitative descriptive	Yes	Yes	Yes	No	CT	CT	Yes

M009	Alsudairy & Eltantawy (2024)	Quantitative descriptive	Yes	Yes	CT	CT	CT	CT	Yes
M010	Altakhaineh et al. (2026)	Mixed methods	Yes	Yes	CT	CT	CT	CT	CT
M011	Beirat et al. (2025)	Quantitative descriptive	Yes	Yes	Yes	No	Yes	CT	Yes
M013	Faiz & Fazil (2024)	Quantitative descriptive	Yes	Yes	Yes	CT	CT	CT	Yes
M016	Granström & Oppi (2025)	Quantitative descriptive	Yes	Yes	Yes	CT	Yes	CT	Yes
M020	Lamacchia et al. (2025)	Mixed methods	Yes	Yes	CT	Yes	Yes	CT	CT
M021	Li et al. (2024)	Qualitative	Yes	Yes	Yes	Yes	Yes	Yes	Yes
M022	Limosnero & Siy (2025)	Qualitative	Yes	Yes	Yes	CT	Yes	CT	CT
M026	Özbilen et al. (2025)	Qualitative	Yes	Yes	Yes	Yes	Yes	Yes	Yes
M027	Sakowicz & Hamidi (2026)	Qualitative	Yes	Yes	Yes	Yes	Yes	Yes	Yes
M028	Sajjad et al. (2025)	Quantitative descriptive	Yes	Yes	Yes	CT	Yes	CT	CT
M033	Shaheen & Zanoon (2025)	Quantitative descriptive	Yes	Yes	Yes	No	CT	CT	Yes
M034	Singcay et al. (2026)	Qualitative	Yes	Yes	Yes	Yes	Yes	CT	Yes
M040	Ulla et al. (2024)	Qualitative	Yes	Yes	Yes	Yes	Yes	Yes	Yes
M041	Adigun et al. (2025)	Quantitative descriptive	Yes	Yes	Yes	CT	CT	CT	Yes
M042	Amouri et al. (2025)	Mixed methods	Yes	Yes	CT	CT	CT	CT	CT
M045	Almarzouq et al. (2025)	Quantitative descriptive	Yes	Yes	Yes	CT	Yes	CT	Yes
M069	Zhang & Zhang (2024)	Quantitative descriptive	Yes	Yes	Yes	CT	CT	CT	Yes
M070	Kalniņa et al. (2024)	Mixed methods	Yes	Yes	CT	CT	CT	CT	CT
M075	Fteiha et al. (2025)	Quantitative descriptive	Yes	Yes	Yes	No	Yes	CT	Yes
M078	Aliazas et al. (2026)	Quantitative descriptive	Yes	Yes	Yes	CT	Yes	CT	Yes

Note. *MMAT = Mixed Methods Appraisal Tool; S1 = clear research question; S2 = collected data allow the research question to be addressed; CT = Cannot tell. C1–C5 represent the five design-specific MMAT criteria.*

Cite as: Alboroto, S. M., Abad, B. J., Apura, E., & Bauyot, M. (2026). Teachers' Readiness for AI Integration and Inclusive Education: A Systematic Literature Review of Empirical Studies, 2021–2026. *International Journal of Multidisciplinary Studies in Higher Education*, 3(4), 24-47. https://doi.org/10.70847/743884