

Artificial Intelligence in Indonesian Guidance and Counseling Services: A Systematic Review of Teachers' Readiness

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ABSTRACT

The development of Artificial Intelligence (AI) has brought about significant changes in the world of education, including in school guidance and counseling practices. AI offers various opportunities, such as analyzing student needs, personalizing services, detecting psychological issues early, and providing digital-based counseling services. However, the successful integration of AI into counseling services depends heavily on the readiness of guidance and counseling teachers as the primary providers of these services. This study aims to comprehensively examine the readiness of guidance and counseling teachers to integrate AI into guidance and counseling services, based on the findings of previous research. The method employed is a Systematic Literature Review (SLR) using the PRISMA 2020 guidelines. This study covers publications from 2020 to 2026 obtained from Scopus and Google Scholar and supplemented by additional searching. After deduplication and screening, 15 reports were assessed for full text eligibility, and 8 studies met the inclusion criteria and were included in the qualitative synthesis. The findings indicate that teacher readiness for AI integration can be understood across five dimensions: (1) technological readiness, (2) AI competence, (3) pedagogical-counseling readiness, (4) ethical readiness, and (5) organizational readiness. The findings also indicate that AI integration in guidance and counseling requires continuous development of teachers' technological competencies, counseling-related competencies, ethical awareness, and organizational support. Across the included studies, these dimensions were reflected in teachers' digital and AI literacy, ability to use AI-supported tools and applications, capacity to integrate AI into guidance and counseling activities, awareness of ethical and data-protection considerations, and the availability of institutional support and training. The findings suggest that AI integration in guidance and counseling requires continuous development of teachers' technological and AI competencies, counseling-related competencies, ethical awareness, and organizational support. This study recommends the development of AI training programs for guidance and counseling teachers, as well as ethical guidelines for the use of AI in school guidance and counseling services.

Keywords: Artificial Intelligence, Guidance and Counseling, Guidance and Counseling Teachers' Readiness

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INTRODUCTION

Digital transformation has changed various aspects of life, including the education sector. One rapidly developing innovation is Artificial Intelligence (AI), which has transformed the way individuals work, learn, and interact. In the educational context, AI is beginning to be utilized to support learning processes, assessments, and student guidance services. In the field of guidance and counseling, AI has the potential to assist guidance and counseling teachers in assessing student needs, early identification of psychosocial issues, online counseling services,

client data management, and the development of more personalized service programs. Furthermore, AI can also help identify students' interests and talents as well as plan career paths. This potential is supported by a study involving 234 guidance and counseling teachers in Indonesia, in which 60.3% of respondents reported that AI-supported career guidance was highly necessary ([Hidayat et al., 2025](#)).

Teachers require AI features such as automated interest and talent assessments, major and career recommendations based on student data, career mapping and self-development planning, as well as real-time information about the job market and universities ([Hidayat et al., 2025](#)). These applications suggest that AI may contribute to the efficiency and personalization of guidance and counseling services. However, the implementation of AI in guidance and counseling services faces various challenges. The characteristics of counseling services which emphasize interpersonal relationships, empathy, teacher competence, confidentiality, and ethical considerations require guidance and counseling teachers to be well-prepared before utilizing AI in their professional practice ([Widyarto et al., 2026](#)).

Previous studies have highlighted the importance of digital and AI-related competencies among educators. In the context of guidance and counseling, limitations in technological competence may affect teachers' ability to utilize emerging digital tools effectively. At the same time, the increasing availability of generative AI tools has introduced new possibilities and challenges for counseling practice. For example, [Farsiah et al. \(2025\)](#) reported that some students may turn to generative AI tools such as ChatGPT for personal disclosure and support. Such developments highlight the need for guidance and counseling teachers to understand both the potential benefits and limitations of AI, particularly with regard to professional boundaries, confidentiality, data protection, and the appropriate role of human counselors

Guidance and counseling teachers therefore play a central role in ensuring that AI integration remains oriented toward students' needs and consistent with the ethical principles of the counseling profession. Although previous studies have examined AI applications in education, career guidance, mental-health support, and counseling-related activities, evidence specifically addressing the readiness of guidance and counseling teachers to integrate AI remains fragmented across different contexts and types of studies. The available evidence includes studies examining teachers' perceived needs, AI-related training and competency development, practical implementation of AI-supported tools, and organizational or ethical considerations. However, these findings have not yet been systematically synthesized to clarify the dimensions of teacher readiness and the factors that support or hinder AI integration in guidance and counseling services.

Therefore, a systematic review is needed to synthesize the available evidence on guidance and counseling teachers' readiness to integrate AI into professional services. Such a synthesis can provide a clearer understanding of the competencies required by teachers, the factors influencing their readiness, and the challenges and opportunities associated with AI implementation. This evidence is particularly relevant for developing teacher training, institutional support, and ethical frameworks for the responsible integration of AI into guidance and counseling practice.

Based on the research gap described above, this study aims to: (1) identify the dimensions of guidance and counseling teachers' readiness to integrate AI into guidance and

counseling services; (2) analyze the supporting factors and barriers influencing this readiness; and (3) identify the challenges and opportunities in the implementation of AI within guidance and counseling services based on a systematic literature review.

METHODS OF RESEARCH

This study employed the Systematic Literature Review (SLR) following the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) 2020 guidelines, involving stages of identification, screening, and data analysis (Page et al., 2021). The literature search was conducted using Scopus and Google Scholar. Scopus was selected as the primary multidisciplinary database because of its broad coverage of research in education, psychology, social sciences, and technology, while Google Scholar was additionally used to identify relevant publications that might not be indexed in Scopus. Given the interdisciplinary scope of this review, these two sources were considered appropriate for identifying literature at the intersection of artificial intelligence, education, guidance and counseling, and teacher competencies.

The literature search was conducted using Publish or Perish (PoP) to retrieve and manage publications identified through the selected sources. The main search strategy combined AI-related terms with guidance and counseling-related terms using Boolean operators. The principal search structure was: ("artificial intelligence" OR "generative AI" OR "generative artificial intelligence" OR "GenAI") AND ("guidance and counseling" OR "guidance counselor" OR "school counselor" OR "school counseling" OR "guidance and counseling teacher" OR "guidance counselor teacher").

Additional searches were conducted by combining AI-related terms with readiness and competency-related terms, including "counselor readiness," "teacher readiness," "AI readiness," "AI competence," "AI competency," and "AI integration.". The AND operator was used to combine the AI related concept with the guidance and counseling concept, while the OR operator was used to combine synonymous or closely related terms within each concept. This structure was intended to improve search precision by requiring retrieved records to address both AI and guidance and counseling.

The publication timeframe was limited to 2020–2026 to capture research addressing the development and application of AI including generative AI in the field of guidance and counseling. The search was designed to identify publications addressing the readiness, competencies, implementation, opportunities, or challenges associated with integrating AI into guidance and counseling services. The database searches yielded 708 records, comprising 38 records from Scopus and 670 records from Google Scholar. Following the removal of duplicate records, including 107 duplicate records within the Google Scholar results and 10 records duplicated across the two databases, 591 unique records remained for screening. The retrieved records were then assessed against the predefined inclusion and exclusion criteria presented in Table 1.

Table 1 Inclusion and Exclusion Criteria

Indicator	Inclusion Criteria	Exclusion Criteria
Source Quality	Publications available through the selected search sources and published in an identifiable scholarly journal or peer-reviewed conference proceeding	Non-scholarly publications, unidentified sources, or publications that cannot be verified as scholarly research outputs
Study Substance	Studies addressing the use, integration, implementation, training, competencies, readiness, opportunities, or challenges related to AI in guidance and counseling services, particularly in relation to guidance and counseling teachers or counselors	Studies unrelated to the use or integration of AI in guidance and counseling services or without relevance to guidance and counseling teachers/counselors.
Eligibility for Analysis	Provides sufficient methodological and/or empirical information to allow assessment and data extraction	Insufficient information for analysis
Publication Type	Original empirical research articles and peer-reviewed conference proceedings reporting primary research or empirical findings	Editorials, opinions, essays, commentaries, non-scientific writings, and publications without sufficient empirical or research-based information
Accessibility	Full-text accessible articles	Articles without full-text access
Publication Year	2020–2026	Articles published before 2020

The inclusion and exclusion criteria were established a priori based on the study objectives, research focus, population and context, publication characteristics, availability of sufficient full-text information, and the feasibility of eligibility assessment and data extraction.

Identification Stage

In the identification stage, the database searches retrieved 708 records, comprising 38 records from Scopus and 670 records from Google Scholar/Publish or Perish (PoP). Following database-level deduplication, including the removal of 107 internal duplicates from the Google Scholar/PoP results and 10 records duplicated across databases, 591 unique records remained for screening. The search strategy covered several thematic areas relevant to the review, including artificial intelligence in guidance and counseling services, AI literacy and competencies among guidance and counseling teachers, counselor readiness for AI integration, and AI-supported or online counseling.

The inclusion and exclusion criteria were established a priori to define the population, context, phenomenon of interest, and types of evidence relevant to the review. These criteria provided a transparent basis for determining study eligibility and helped establish the conceptual boundaries of the review. Clear eligibility criteria also facilitate reproducibility and enable readers to assess the appropriateness and scope of the evidence included. Accordingly, the criteria functioned not only as a methodological tool for study selection but also as a framework for defining the focus of the review and synthesizing evidence relevant to the theory, practice, and implementation of guidance and counseling in Indonesia.

During the screening stage, Reviewer 1 screened the 591 unique records against the predefined eligibility criteria. A total of 580 records were excluded at the screening stage, leaving 11 database derived reports for full text assessment. In addition, four potentially

relevant records were identified through supplementary searching and were assessed using the same eligibility criteria. Thus, a total of 15 reports were considered for full-text eligibility assessment. Reviewer 2 subsequently reviewed the potentially eligible reports to verify their relevance and eligibility. Any disagreements between the reviewers were discussed and resolved through consensus. Following full-text assessment, seven reports were excluded, and eight studies met all eligibility criteria and were included in the qualitative synthesis.

Selection Stage

In the selection stage, the 591 unique records remaining after database level deduplication were screened based on their titles and abstracts against the predefined inclusion and exclusion criteria. A total of 580 records were excluded at this stage because they did not meet the predefined eligibility requirements, leaving 11 reports for full text assessment from the database search. In addition, four potentially relevant reports identified through supplementary searching were assessed using the same eligibility criteria. Consequently, 15 reports underwent full-text eligibility assessment. Following the full text assessment, 7 reports were excluded because they did not meet the predefined eligibility criteria, while 8 studies met all eligibility requirements and were included in the qualitative synthesis. The complete study-selection process is presented in Figure 1.

Reconstructed from the documented database and supplementary-search audit trail

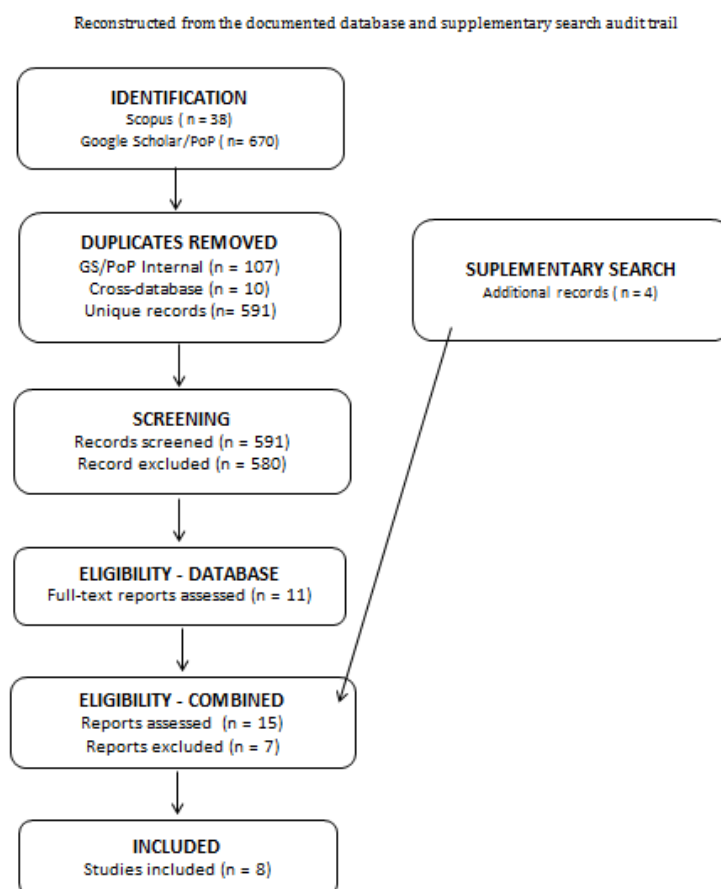


Figure 1 Article Selection Process Using the Prisma Flow Diagram

Data Analysis

Data from the studies that met the eligibility criteria were systematically extracted and organized into a structured data-extraction matrix according to key characteristics relevant to the research questions. The extracted information included bibliographic and methodological characteristics, such as author(s), publication year, article title, journal, Scopus/SINTA indexing status, DOI, research design, subjects or sample, and research context, as well as information related to forms of AI or digital service utilization, guidance and counseling teacher readiness, AI integration in counseling services, and guidance and counseling teacher competencies. A summary of the key characteristics of the included studies is presented in Table 2, while the detailed data-extraction matrix is provided in Appendix A (Supplementary Table A1).

Data analysis was conducted using narrative thematic synthesis, adapting the thematic analysis stages outlined by Braun and Clarke: (1) familiarizing with the data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report (Braun & Clarke, 2006). The analysis process involved reading all articles repeatedly to identify relevant units of information, such as forms of AI utilization in guidance and counseling services, types of digital services, counseling outcomes, implementation challenges, and guidance and counseling teacher competencies. Codes with similar meanings were subsequently grouped into broader categories and developed into coherent themes. The analysis yielded five main dimensions: (1) technological readiness, (2) AI competency, (3) pedagogical-counseling readiness, (4) ethical and privacy readiness, and (5) organizational readiness.

Overall, the use of narrative thematic synthesis allowed for the integration of findings from various types of studies, resulting in a comprehensive synthesis regarding the developmental trajectory, evidentiary strength, and challenges faced by guidance and counseling teachers in integrating AI into guidance and counseling services.

Characteristics of Included Studies

The eight studies included in the systematic review are summarized in Table 2. The table presents their key bibliographic and methodological characteristics, including author(s), publication year, article title, journal, Scopus/SINTA indexing status, DOI, study design, participants or sample, research context, and main findings. Additional information regarding AI utilization, guidance and counseling teacher readiness, AI integration, and teacher competencies is provided in Appendix A (Supplementary Table A1).

Table 2. Characteristics of Included Studies

No.	Author(s)	Year	Title	Journal	Design	Sample/ Context	Key Findings
1	Septiadi, Sulistya, Adhinata, & Fitriana	2026	Artificial Intelligence Training for Guidance and Counseling at Purbalingga Regency	Bakti Sekawan: Jurnal Pengabdian Masyarakat, 6(1), 185–192	Community-service training / pre–post evaluation	Guidance and counseling teachers in Purbalingga Regency; participant number not reported in the accessible abstract	Two-session AI training improved teachers’ understanding of AI, prompting, ethical use, and student-data security; AI was positioned as a support tool rather than a replacement for counselors.
2	Lubis, Sucipto, Rozzaqyah, Putri, et al.	2026	Increasing the Competency of Guidance and Counseling Teachers Through Preparing Basic Service Materials with the Assistance of Artificial Intelligence	International Journal of Public Devotion, 9(1), 44	Community-service intervention; pretest–posttest	23 BK teachers from 20 schools in Palembang City, South Sumatra	Training using AI/ChatGPT for developing basic guidance-service materials increased mean scores from 112.17 to 139.57 (N-Gain 0.72, high category).
3	Sari, Putro, & Assyauqi	2026	AI-Based Adaptive Career Guidance for Sustainable Transformation in TVET Education	Journal of Artificial Intelligence and Technology, 6, 520–531	Design and Development Research	210 vocational students plus guidance counselors and industry representatives; Indonesian TVET context	Findings supported demand for personalized AI-supported career guidance and identified data fragmentation, limited digital tools, and competency–labor-market misalignment as implementation challenges.
4	Falah	2025	Islamic Counseling in the Age of Disruption: Synergy between Artificial Intelligence Technology and Islamic Educational Values in Addressing Juvenile Delinquency	G-Couns: Jurnal Bimbingan dan Konseling, 10(01), 500–515	Qualitative case study	15 students and 3 counselors at IBN Tegal, Indonesia	A hybrid AI-assisted Islamic counseling model was developed for early identification of psychological distress and spiritually grounded support; AI was framed as complementary to human counseling.

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No.	Author(s)	Year	Title	Journal	Design	Sample/ Context	Key Findings
5	Hidayat, Marfu'i, & Nufus	2025	and Student Mental Health Seberapa perlukah kebutuhan layanan bimbingan karier AI-driven: studi pada guru bimbingan dan konseling di Indonesia	Jurnal Konseling dan Pendidikan, 13(3), 387–398	Needs-analysis survey; mixed open- and closed-ended questionnaire	234 Indonesian guidance and counseling teachers; respondents had >5 years of teaching experience	60.3% considered AI-supported career counseling highly necessary; desired features included automated interest/aptitude assessment, data-based career recommendations, career mapping, and real-time labor-market/higher-education information.
6	Kanthi, Subari, Amien, Sijabat, Radita, & Palandi	2025	Integrasi Tools AI dalam Pembelajaran: Pelatihan Peningkatan Kompetensi Digital bagi Guru BK	Prosiding Konferensi Nasional Pengabdian Masyarakat (KOPEMAS), 6, 424–431	Community-service training; workshop, practice, mentoring, and evaluation	35 BK teachers from senior/vocational high schools in Malang City and Batu City, East Java	Training with Edcave and ClassPoint improved reported understanding, satisfaction, and readiness to apply AI in learning and guidance-and-counseling services.
7	Ariffudin, Rahmawati, & Nugraha	2026	Pelatihan Media Digital Deteksi Dini Kesehatan Mental Berbantuan Glide Apps dengan Chatbot AI untuk Guru BK SMA/MA Kota Kediri	GANESHA: Jurnal Pengabdian Masyarakat, 6(1), 542–551	Participatory–implementation training and mentoring	BK teachers at SMA/MA in Kediri City; participant number not stated in the accessible abstract	Training integrated GlideApps and an AI chatbot based on DASS-21 for early mental-health detection and BK information services, emphasizing practical implementation and sustainability.
8	Risnawati	2025	Utilization of Artificial Intelligence (AI) by Guidance and Counseling Teachers in Character Development at Madrasah Aliyah	Proceeding of International Conference on Islamic and Interdisciplinary Studies (ICIIS), 4, 447–451	Qualitative study; semi-structured interviews, observation, and document review; thematic analysis	Selected Madrasah Aliyah settings; BK teachers, school principals, and IT support staff; participant number not reported	AI supported behavior monitoring, early identification, personalized character-development planning, and workload reduction; ethical data use, teacher training, and institutional support were identified as prerequisites.

The detailed characteristics and data-extraction matrix of the included studies are provided in Appendix A (Supplementary Table A1).

RESULTS AND DISCUSSION

Table 3 Synthesis of Readiness Dimensions of Guidance and Counseling Teachers in Integrating Ai

Readiness Dimension	Key Findings	Key Challenges	Developmental Implications
Technological Readiness	Guidance and counseling (GC) teachers need digital literacy and the ability to utilize AI-based platforms to enhance service accessibility and effectiveness.	Digital competence gap, low technological adaptability, and limited training.	Continuous digital literacy and technology integration training in GC teachers' professional development.
AI Competency Readiness	GC teachers need to understand AI concepts, functions, benefits, limitations, algorithmic bias, and the validity of AI outputs.	Low AI literacy, misinterpretation risks, automation bias, and over-reliance on AI.	Curriculum development and AI training emphasizing critical thinking skills and AI output evaluation.
Ethical Readiness	Ethical aspects constitute a central issue in utilizing AI for guidance and counseling services.	Data privacy, client confidentiality, algorithmic bias, data security, and AI decision accountability.	Formulation of guidelines and a code of ethics for AI usage in guidance and counseling services.
Pedagogical-Counseling Readiness	AI can assist in student needs assessment, data analysis, and service personalization.	AI is not yet capable of replacing empathy, therapeutic alliance, emotional intelligence, and professional judgment of counselors.	AI should be positioned as an augmentative tool that enhances rather than replaces the counselor's role.
Organizational Readiness	Successful AI implementation is influenced by policy support, training, infrastructure, and organizational culture.	Digital infrastructure gap, human resource constraints, and lack of clear regulatory frameworks.	Strengthening institutional policies, providing infrastructure, and systematically upgrading human resource capacity.

Technological Readiness

The integration of technology into guidance and counseling services presents a challenge that must be addressed by educators and educational stakeholders. This challenge arises alongside the entry of the digital generation into the education system, making the integration of technology into guidance and counseling services an imperative to meet the needs and preferences of modern students (Hafizah & Neviyarni, 2024; Supriyanto et al., 2020). This requires guidance and counseling teachers to be proficient in operating digital devices and to understand the functions of various AI applications. Digital platforms enable students to consult anytime and anywhere, thereby making guidance and counseling services more accessible (Ifdil et al., 2020). The utilization of AI functions is not only for resolving personal issues, but also for making meaningful career decisions through the provision of more personalized information and recommendations (Hafizah & Neviyarni, 2024; Muhammad et al., 2024; Sampson et al., 2020).

Evidence from the included studies further demonstrates that technological readiness

is closely related to teachers' ability to move from awareness of AI to practical use in guidance and counseling activities. Training interventions involving AI tools, including ChatGPT, Edcafe, ClassPoint, and AI-supported digital applications, were associated with improvements in teachers' understanding, confidence, and readiness to apply AI in guidance-related activities (Ariffudin et al., 2026; Kanthi et al., 2025; Lubis et al., 2026).

These findings indicate that technology no longer serves merely as a supporting medium for services, but has begun transforming into an instrument that can enhance decision-making quality in guidance and counseling practices. However, increasing service accessibility through technology does not automatically guarantee an enhancement in service quality if it is not balanced by the readiness of guidance and counseling teachers to utilize technology appropriately and professionally.

The development of digital literacy skills for guidance and counseling teachers is a primary prerequisite for effectively utilizing AI in counseling services. Teachers and counselors with superior digital skills tend to be more successful in integrating AI tools into their practice, thereby enhancing the quality of the services provided (Hidayatullah & Muslihati, 2025). The synthesis results demonstrate that digital literacy cannot be equated with AI readiness. Consequently, technological readiness needs to be understood not merely as the ability to use digital devices, but also as the capacity to adapt to rapid technological changes.

Research indicates that the rate of AI adoption is heavily influenced by the perceived ease of use and usefulness of the technology. An exploration of guidance and counseling teachers' perceptions regarding technology use reveals that, although they hold a positive attitude, concerns persist regarding their technological competence. Ardi et al. (2026) identified a lack of readiness among guidance and counseling teachers in utilizing technology for counseling services, alongside a significant gap in digital competence. Digital skills encompass a wide range of abilities, spanning from the mastery of digital tools and an understanding of data privacy to the ability to leverage new technologies for problem-solving. These findings point to an adoption paradox, wherein a positive attitude toward technology is not necessarily accompanied by the readiness to implement it. This condition indicates that the primary barrier to AI integration lies not merely in technology acceptance, but also in users' capacity to operate and manage technology effectively within professional service contexts.

Consequently, continuous and structured training programs are necessary to enhance counselors' digital skills. This approach is crucial because the primary challenge in the AI era is no longer confined to the ability to use technology, but rather the capacity to utilize technology responsibly and in a manner oriented toward student needs. In this context, several essential characteristics for guidance and counseling teachers in the Society 5.0 era include: (1) spiritual maturity, (2) high sensitivity to technological developments, (3) a strong sense of community, (4) respect for individual freedom and diversity, and (5) the ability to innovate and collaborate. These characteristics demonstrate that ideal technological readiness is not solely oriented toward technical aspects, but also encompasses social, moral, and professional dimensions that form the foundational core of guidance and counseling practice.

AI Competency Readiness

The increasingly widespread use of artificial intelligence (AI) technology has gained significant attention in recent research. AI significantly impacts daily life through decision-making and routines supported by advanced algorithms. Its sophistication can foster an increasingly collaborative relationship between humans and AI, wherein technology serves not only as a supportive tool, but also as a cognitive partner in processing information and generating recommendations. This collaborative relationship necessitates a fundamental understanding of AI so that individuals can make informed and responsible decisions. In the context of guidance and counseling, the use of big data analytics and AI can provide deeper insights into student needs and yield more personalized feedback, thereby potentially enhancing the effectiveness and efficiency of guidance and counseling services ([Hafizah & Neviyarni, 2024](#); [Hidayat & Alfani, 2020](#)). These findings demonstrate that AI has the potential not only to increase the work productivity of guidance and counseling teachers, but also to support more data-driven decision-making. However, these benefits are highly dependent on the user's ability to understand and interpret the information generated by AI systems.

Consequently, AI literacy and competency are key factors in the successful integration of AI into education and sustainable guidance and counseling services. Unlike digital literacy, which focuses on the ability to use technology, AI competency encompasses the capacity to understand the basic principles of AI, evaluate the quality of system outputs, recognize algorithmic limitations, and utilize generated information critically and reflectively. The synthesis of various studies shows that AI competency serves as a bridge connecting technical ability with professional capability in utilizing technology appropriately. Without such competency, the use of AI risks becoming merely mechanical and failing to provide significant value-added benefits to the quality of guidance and counseling services.

The growing availability of sophisticated Generative AI systems is driving a transformation that requires non-expert users to master the skills, knowledge, and attitudes necessary to interact with AI wisely. Guidance and counseling teachers are required not only to be capable of using AI, but also to understand potential algorithmic biases, AI hallucinations, and the possible emergence of inaccurate or contextually inappropriate recommendations for students. These findings are crucial because guidance and counseling services deal directly with decision-making processes that impact individual development. Errors in understanding or utilizing AI outputs have the potential to produce inappropriate interventions and may even affect student well-being. Therefore, AI competency cannot be separated from critical thinking skills and the professional judgment possessed by guidance and counseling teachers.

The findings of the study also indicate that one of the primary challenges in developing AI competency is the tendency of users to treat AI outputs as objective and error-free information. Relying on human mental models to interpret AI outputs often leads to misunderstandings, which ultimately cause frustration and hinder the optimal utilization of the technology. On the other hand, there is also the risk of automation bias the inclination of individuals to accept AI recommendations without further verification. This condition demonstrates that AI competency involves not only technical capabilities but also the capacity to maintain a critical stance toward the outputs provided by AI systems. In the context of guidance and counseling services, this capability is particularly vital because every

professional decision must account for the unique conditions and specific needs of students, which cannot always be fully represented by algorithms.

Conversely, developing a functional understanding of AI as a cognitive tool enables guidance and counseling teachers to recognize when and how AI can be utilized effectively, while simultaneously comprehending its limitations. This understanding fosters a more proportional use of AI namely as a supporting tool for data collection, needs identification, pattern analysis, and service program development without diminishing the professional role of the counselor in making final interpretations and decisions. Thus, ideal AI competency is characterized not merely by the ability to operate technology, but also by the capacity to integrate AI critically, reflectively, and responsibly into guidance and counseling practice. These findings reinforce the argument that the success of AI integration in guidance and counseling services is determined more by the quality of the user's competency than by the sophistication of the technology itself.

Ethical Readiness

Ethical aspects constitute the most dominant issue in the implementation of Artificial Intelligence (AI) within guidance and counseling services. Numerous studies indicate that the use of AI in counseling contexts not only presents opportunities to enhance service efficiency, but also introduces complex risks, such as client data breaches, violations of information confidentiality, algorithmic bias, and accountability issues in system-based decision-making. These findings underscore that ethical issues cannot be positioned as secondary considerations; rather, they serve as the primary foundation that determines the viability of AI utilization in counseling services.

The included studies provide concrete evidence that ethical readiness must accompany the practical adoption of AI. [Septiadi et al. \(2026\)](#) incorporated ethical AI use and student-data security into teacher training. [Falah \(2026\)](#) further positioned counselors as human decision-makers within a hybrid AI-assisted counseling model, emphasizing that AI should complement rather than replace professional counseling judgment.

Ethical issues surrounding AI usage, particularly those related to potential privacy breaches and threats to personal data security, highlight a gap between technological advancements and the readiness of regulatory frameworks as well as professional field practices. In this context, the use of social media and digital platforms for school counseling services reinforces the urgent need for clear, systematic, and operational guidelines regarding the boundaries of technology integration in guidance and counseling services. Such guidelines serve not only as technical instruments, but also as ethical controls to ensure that the counseling process upholds the dignity, confidentiality, and security of students as counselees.

Although AI offers various benefits in supporting counseling services such as efficient data management and enhanced service accessibility numerous studies reveal persistent fundamental concerns regarding data security, the quality of interaction between counselors and counselees, and the effectiveness of online counseling in addressing complex and sensitive psychological issues. This indicates that the application of AI in counseling cannot be evaluated solely from technical and efficiency aspects, but must also account for the relational and psychological dimensions that lie at the core of the counseling process.

Pedagogical-Counseling Readiness

The application of artificial intelligence (AI) in student needs assessment offers a more sophisticated, systematic, and data-driven approach to supporting the role of counselors in guidance and counseling services. With its capability to analyze large volumes of data rapidly and accurately, AI enables the identification of more specific student needs across various developmental dimensions, including academic, social, personal, and emotional aspects. This technology can uncover patterns that are difficult to detect through conventional analysis, such as interrelationships among psychological assessment results, academic performance, attendance records, and specific behavioral indicators. Such information can be leveraged to design interventions that are more targeted and aligned with students' actual needs. Furthermore, AI can generate personalized recommendations based on the unique characteristics of each individual, rendering service programs more relevant, adaptive, and potentially increasing the overall effectiveness of guidance and counseling services.

The included studies illustrate several concrete applications that require counselors to integrate AI capabilities with counseling knowledge and professional judgment. [Hidayat et al. \(2025\)](#) found that guidance and counseling teachers identified automated interest and aptitude assessment, data-based career recommendations, career mapping, and real-time labor-market and higher-education information as desirable AI-supported functions. [Sari et al. \(2026\)](#) similarly proposed an adaptive career-guidance framework incorporating multimodal data, psychometric profiling, natural language processing, and adaptive recommendations.

Although AI can assist in data analysis processes, needs assessment, and service program development, the therapeutic relationship between counselor and counselee cannot be fully replaced by technology. Many guidance and counseling teachers believe that AI is best utilized for administrative tasks, data processing, and service support functions, whereas dimensions such as empathy, rapport, emotional intelligence, interpersonal sensitivity, and risk assessment still require human skills that are difficult for technology to replicate ([Darwanto & Sari, 2020](#)). This is corroborated by other research findings indicating that counseling students, as prospective practitioners, perceive AI as lacking the capacity to demonstrate genuine empathy, warmth, and authentic therapeutic alliance as provided by human counselors ([Setiawan et al., 2025](#)). These findings reinforce the argument that AI maintains fundamental limitations in fulfilling the principles of humanistic counseling, which position interpersonal relationships as the core of intervention.

Furthermore, the research reveals fundamental boundaries in the application of AI within counseling practice. Although AI is capable of simulating seemingly empathetic responses through natural language processing, the technology lacks emotional consciousness, lived experiences, and moral capacity the very bedrock of human understanding regarding the psychological experiences of others. This demonstrates that humanistic elements in counseling remain a domain that cannot be fully automated. Therefore, pedagogical-counseling readiness in the AI era is defined not as the capacity to replace counseling practice with technology, but rather as the ability to integrate technology without diminishing the essence of the therapeutic relationship, which constitutes the core of the counseling profession.

Aspects such as complex negotiation, leadership, ethical considerations, and moral decision-making remain domains where humans possess significantly greater strengths

compared to AI ([Setiawan et al., 2025](#)). Thus, it can be concluded that AI should be positioned as an augmentative technology a tool that enhances the counselor's professional capacity to understand student needs and improve service quality rather than as a substitutive technology that replaces the role of counselors in aspects requiring high ethical and relational sensitivity. This perspective is vital to ensuring that the development of AI-based guidance and counseling services remains grounded in pedagogical and humanistic principles, while placing student well-being as the primary goal of the service. Optimal pedagogical-counseling readiness is achieved when guidance and counseling teachers are able to leverage the analytical advantages of AI while maintaining the empathetic, reflective, and relational capabilities that define the counseling profession.

Organizational Readiness

The implementation of artificial intelligence (AI) in guidance and counseling services depends not only on the individual readiness of guidance and counseling teachers, but is also heavily influenced by the support of school institutions as the environment in which the technology is applied. Policy support, training, regulations, organizational culture, and the availability of technological infrastructure are critical factors that can determine the success or failure of AI integration into guidance and counseling services ([Saputra et al., 2022](#)). These findings demonstrate that AI adoption in guidance and counseling services cannot be viewed as an individual process, but rather as a systemic change requiring comprehensive organizational readiness. In other words, high competence among guidance and counseling teachers cannot be utilized optimally unless supported by an institutional environment conducive to technology use.

Furthermore, the availability of adequate technological infrastructure remains a challenge in many schools, particularly in remote areas and regions with limited digital access. [Hafizah & Neviyarni \(2024\)](#) found that without adequate technological support, digital-based guidance and counseling services are difficult to implement effectively. This finding indicates that digital transformation in guidance and counseling services involves not only technological innovation, but also equitable access to such technology. In this context, organizational readiness reflects not only a school's capacity to adopt new technologies, but also its ability to provide the necessary resources that enable all school members to derive equal benefits from technological advancements.

Furthermore, [Ardi et al. \(2026\)](#) revealed in their study that the technological infrastructure gap between urban and rural areas presents a significant barrier to the equitable provision of technology-based guidance and counseling services. This finding illustrates that AI implementation has the potential to create a new paradox within educational services. On one hand, AI is designed to enhance service accessibility and effectiveness; on the other hand, infrastructure limitations may cause certain students to fall further behind in receiving quality services. This condition indicates that the success of AI integration is determined not only by the sophistication of the technology utilized, but also by the education system's capacity to address ongoing access disparities across regions. Therefore, alternative strategies capable of reaching students with limited technology access are required, such as hybrid service models, the utilization of simpler platforms, and the equitable provision of digital facilities by schools and the government.

Beyond physical infrastructure, the readiness of human resources within the organization also serves as a crucial determinant of successful AI implementation. Schools require educators, technical personnel, and system administrators equipped with the capability to operate, manage, and maintain the technologies used in guidance and counseling services. The synthesis results show that many educational digitalization programs encounter obstacles not due to technological limitations, but rather because of a lack of human resource capacity to utilize technology optimally. Consequently, investing in human resource competency development is just as vital as investing in technological infrastructure.

More broadly, the review findings indicate that organizational readiness functions as an enabling factor influencing all other readiness dimensions. Strong organizational support facilitates enhanced technological readiness, AI competency development, heightened ethical awareness, and optimized pedagogical-counseling readiness. Conversely, weaknesses within the organizational aspect can hinder the development of these dimensions, even if individual guidance and counseling teachers possess adequate motivation and competence.

Thus, the five readiness dimensions identified in this study technological readiness, AI competency, ethical readiness, pedagogical-counseling readiness, and organizational readiness do not exist in isolation, but rather interact with and influence one another. Organizational readiness serves as the context that allows the other dimensions to develop optimally. This finding reinforces the argument that the successful implementation of AI in school guidance and counseling services must be understood as the outcome of interactions among individual, professional, ethical, and institutional factors that together constitute an integrated readiness ecosystem.

Implications for Guidance and Counseling Development

Pre-Service Training Programs: Guidance and counseling teacher education programs need to adjust their curricula by incorporating coursework related to Artificial Intelligence in counseling. This integration is crucial for equipping prospective counselors with conceptual understanding, technical skills, and critical capabilities to utilize AI ethically and professionally within counseling services.

Professional Organizations: Guidance and counseling professional organizations need to formulate and establish a dedicated code of ethics regarding the use of AI in counseling services. This code of ethics serves as a guideline to safeguard data confidentiality, prevent technology misuse, mitigate algorithmic bias risks, and ensure that AI usage remains strictly within professional counseling boundaries.

School Institutions: Schools as educational service institutions must provide continuous AI training programs for guidance and counseling teachers. Such training should focus not only on the technical aspects of technology usage, but also encompass AI literacy, data-driven decision-making, and the enhancement of ethical competencies in utilizing digital counseling technologies.

The development and implementation of AI in guidance and counseling services must remain oriented toward humanistic approaches and centered on student well-being. In this regard, AI is positioned as an auxiliary tool that strengthens the counselor's role, rather than as a replacement for the therapeutic relationship that lies at the heart of the counseling process. This approach is essential to ensuring that empathy, acceptance, and individual

uniqueness remain the primary foundation of guidance and counseling services.

Limitations of the Study

This study has several limitations that should be considered when interpreting the findings. First, the literature search was limited to Scopus and Google Scholar. Although these sources provide broad multidisciplinary coverage, specialized databases such as ERIC and PsycINFO were not searched and may contain additional literature relevant to education, psychology, and counseling. Therefore, the possibility of publication or database-selection bias cannot be completely excluded. Future reviews could expand the search to additional subject-specific databases to improve literature coverage.

Second, only 8 studies were included in the final synthesis. Research specifically examining the readiness of guidance and counseling teachers to integrate AI remains developing. Therefore, the five readiness dimensions identified in this review should be interpreted as evidence-based themes rather than as definitive or universally applicable dimensions. Third, differences in indexing, terminology, and database coverage may have resulted in potentially relevant studies being overlooked. In particular, studies using alternative terminology to describe artificial intelligence, counseling technology, teacher readiness, or AI competence may not have been retrieved.

Fourth, this review did not conduct a formal methodological quality appraisal or risk of bias assessment of the included studies. Consequently, differences in methodological rigor among the included studies may influence the strength and interpretation of the synthesized findings. Future systematic reviews should incorporate a structured methodological quality appraisal or risk-of-bias assessment to strengthen the evaluation and interpretation of the available evidence

CONCLUSIONS

The readiness of guidance and counseling teachers to integrate AI involves not only the technical capability to use technology, but also encompasses AI competency, ethical readiness, pedagogical-counseling readiness, and organizational support. The literature demonstrates that AI holds immense potential for enhancing the quality of counseling services through personalization, efficiency, and expanded service access. However, successful implementation requires the strengthening of guidance and counseling teachers' competencies alongside a clear ethical framework. Therefore, policies, training, and ethical guidelines are needed to support the responsible implementation of AI within guidance and counseling services.

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