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Artificial Intelligence Readiness and Teacher Instructional Leadership among Public Elementary School Teachers in Tacurong City Division

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ABSTRACT

This study examined the relationship between artificial intelligence (AI) readiness and teacher instructional leadership among public elementary school teachers in Tacurong City Division, Philippines. An explanatory sequential mixed-methods design involved 300 teachers selected through proportionate stratified random sampling and 30 teachers interviewed for qualitative explanations. Data were collected using a validated, researcher-adapted and researcher-developed questionnaire and individual interviews, then analyzed through descriptive statistics, Pearson correlation, multiple linear regression, and thematic analysis. Teachers reported very high AI readiness ($M = 4.465$, $SD = 0.444$) and instructional leadership ($M = 4.524$, $SD = 0.450$). AI readiness was strongly associated with instructional leadership ($r = .806$, $p < .001$), with the regression model explaining 71.7% of its variance ($R^2 = .717$). AI Foundations and Applications, AI Pedagogy, and Human-Centered Mindset emerged as significant positive predictors, whereas Ethics of AI and AI for Professional Learning were not significant unique predictors. Qualitative findings highlighted experiential learning, collaboration, instructional preparation, professional judgment, and challenges involving accuracy, accessibility, privacy, and overdependence. The findings indicate significant statistical associations rather than causation. Schools should prioritize practical AI training, collaborative professional development, equitable technological access, and ethical safeguards. Self-reported measures, the single-division setting, and nonexperimental design limit generalizability and causal interpretation. The study provides evidence for sustainable teacher development and responsible AI integration, supporting SDG 4 (Quality Education), with relevance to SDG 9 (Industry, Innovation and Infrastructure) and SDG 10 (Reduced Inequalities).

Keywords: *AI Readiness, Educational Sustainability, Elementary Teachers, Instructional Leadership, Mixed Methods, Professional Learning, Responsible AI*

1. INTRODUCTION

Artificial intelligence (AI) is transforming educational practices by supporting instructional planning, learning resource development, assessment, and professional learning. However, its effective integration requires technological knowledge, pedagogical competence, ethical awareness, and professional judgment. UNESCO (2024) emphasizes the importance of developing teachers' AI competencies through human-centered, ethical, and pedagogically appropriate approaches. Yue et al. (2024) identified substantial gaps in AI-related knowledge among 1,664 K–12 teachers, while Wang et al. (2023) demonstrated the relevance of AI readiness to teachers' professional innovation. These developments highlight the need to examine how teachers' preparedness for AI relates to instructional leadership, particularly in public elementary education.

Research Problem

The increasing integration of AI into basic education presents opportunities for instructional improvement but also raises concerns regarding teachers' preparedness, learner protection, technological accessibility, and responsible implementation. UNESCO (2024) reported that, as of 2022, only seven countries had established AI competency frameworks or professional development programs specifically for teachers. Sperling et al. (2024) identified gaps in the literature concerning teachers' practical and ethical knowledge of AI, while Kokoç et al. (2026) emphasized the importance of individual competencies, professional confidence, and institutional conditions in developing teachers' AI literacy. In the Philippine context, Cubillas et al. (2026) examined AI literacy and adoption among basic education teachers in Butuan City, highlighting the importance of professional development and institutional support. Similarly, Xiu et al. (2026), in a multinational study that included Philippine teachers, identified AI readiness and institutional support as important correlates of teachers' positive beliefs about generative AI. Although these studies provide relevant evidence concerning AI adoption and preparedness, they do not directly establish the relationship between AI readiness and teacher instructional leadership in Tacurong City Division. Existing research has also examined instructional leadership, professional learning, and instructional practices (Dorukbaşı & Cansoy, 2024; Thien & Liu, 2024). However, these studies primarily investigated school-level instructional leadership rather than teachers' AI readiness as a predictor of their own instructional leadership. This distinction establishes the need for a context-specific investigation of whether AI readiness is significantly associated with teacher instructional leadership among public elementary school teachers in Tacurong City Division.

Assumptions of the Study

The study was guided by the assumption that AI readiness is a multidimensional professional competency encompassing technological understanding, ethical responsibility, pedagogical application, and continuous professional learning. Teachers' readiness to use AI may be associated with their participation in instructional improvement, professional collaboration, and evidence-informed decision-making. These assumptions are consistent with the competency-based perspective of Miao and Cukurova (2024) and the understanding of teacher AI literacy presented by Du et al. (2024). The study further assumed that teachers' reported experiences could provide meaningful explanations of the relationships identified through quantitative analysis. Nevertheless, the proposed association between AI readiness and teacher instructional leadership was treated as an empirical question rather than an established causal relationship.

Objectives of the Study

This study generally aimed to determine the relationship between artificial intelligence readiness and teacher instructional leadership among public elementary school teachers in Tacurong City Division. Specifically, it sought to assess teachers' AI readiness in terms of human-centered mindset, ethics of AI, AI foundations and applications, AI pedagogy, and AI for professional learning. It also aimed to determine their level of teacher instructional leadership in terms of setting instructional direction, supporting instructional improvement, collaborative professional influence, supporting professional learning, and monitoring and using evidence for instructional improvement. Furthermore, the study examined the significant relationship between overall AI readiness and overall teacher instructional leadership and identified which dimensions of AI readiness significantly predicted instructional leadership. Finally, it sought to identify quantitative findings requiring further explanation and explore teachers' experiences and perspectives to contextualize significant, weak, unexpected, or nonsignificant statistical findings through an explanatory-sequential mixed-methods approach.

Theoretical or Conceptual Basis

The study was anchored in the UNESCO AI Competency Framework for Teachers and contemporary perspectives on instructional leadership. The UNESCO framework identifies five interconnected competency dimensions: Human-Centered Mindset, Ethics of AI, AI Foundations and Applications, AI Pedagogy, and AI for Professional Learning. These dimensions emphasize that teachers must combine technological understanding with human agency, ethical responsibility, pedagogical judgment, and continuous professional development (Miao & Cukurova, 2024). The instructional leadership perspective emphasizes the establishment of instructional direction, improvement of teaching practices, professional collaboration, continuous learning, and evidence-informed decision-making. Dorukbaşı and Cansoy (2024) established significant relationships among school principals' instructional leadership, teacher professional learning, and instructional practices. Similarly, Thien and Liu (2024) demonstrated the importance of teacher self-efficacy in the relationship between instructional leadership and professional learning. These findings provide contextual support for examining professional learning and collaborative improvement as important components of teacher instructional leadership. The conceptual framework positions AI readiness as the predictor construct and teacher instructional leadership as the outcome construct, each comprising five dimensions. The quantitative phase examines the levels, relationships, and statistical predictors of these constructs, while the qualitative phase explores teachers' experiences to explain and contextualize the quantitative findings. This integration supports a comprehensive interpretation of the observed relationships without implying causation.

The study primarily aligns with SDG 4 – Quality Education, particularly its emphasis on equitable educational opportunities and improving teachers' professional competencies. Examining AI readiness and instructional leadership may provide evidence for developing professional learning initiatives, strengthening instructional practices, and supporting responsible technological integration. Miao and Cukurova (2024) emphasize that teacher AI competencies should promote inclusive, ethical, and human-centered educational practices, while UNESCO (2023) highlights the importance of evaluating educational technologies according to their relevance, equity, scalability, and sustainability. The study also has supporting relevance to SDG 9 – Industry, Innovation and Infrastructure, through its consideration of educational technology integration and digital access, and SDG 10 – Reduced Inequalities, through concerns involving unequal access to AI tools, connectivity, and professional development opportunities. Somabut et al. (2025) identified infrastructure and institutional support as important considerations in teachers' preparedness for generative AI integration. From a sustainability perspective, the study

contributes evidence relevant to educational, technological, and institutional sustainability by examining competencies and professional practices that may support continuing instructional improvement. Its potential contribution lies in informing capacity-building programs, equitable technology access, and responsible AI governance. These are practical implications of the research rather than demonstrated causal effects on educational quality or sustainable development.

2. METHODOLOGY

Research Design

The study utilized an explanatory sequential mixed-methods design (QUAN → QUAL), beginning with a nonexperimental predictive-correlational quantitative phase followed by a qualitative phase. Descriptive and inferential statistics were employed to determine the levels of AI readiness and teacher instructional leadership, examine their relationships, and identify significant statistical predictors. Subsequently, individual interviews explored teachers' experiences and perspectives to clarify significant, unexpected, or nonsignificant quantitative findings. Both sets of findings were integrated during interpretation to provide contextual explanations without establishing causal relationships.

Research Locale or Study Setting

The study was conducted in public elementary schools within the Schools Division of Tacurong City, Philippines. The division comprises five geographical clusters: Central, North, South, West, and East, which served as the sampling strata. Participating schools were represented proportionately according to their respective teacher populations to ensure adequate representation across the division. The research setting provided the context for examining teachers' AI readiness and instructional leadership practices in public elementary education.

Participants or Data Sources

The study involved 300 public elementary school teachers selected from a population of 520 teachers using proportionate stratified random sampling. Respondents were distributed across the five clusters, comprising 61 teachers from Central, 55 from North, 55 from South, 65 from West, and 64 from East. Within each cluster, participants were allocated proportionately across schools based on teacher population and randomly selected from school teacher lists. For the qualitative phase, 30 teachers participated in individual interviews. They were proportionately allocated across participating schools and randomly selected from their respective teacher populations. Eligibility and exclusion criteria were applied during recruitment, and participation was voluntary.

Research Instruments or Materials

The study utilized a researcher-adapted and researcher-developed structured questionnaire consisting of two parts: AI readiness and teacher instructional leadership. Each part contained 15 items distributed across five dimensions. AI readiness covered Human-Centered Mindset, Ethics of AI, AI Foundations and Applications, AI Pedagogy, and AI for Professional Learning. Teacher instructional leadership assessed Setting Instructional Direction, Supporting Instructional Improvement, Collaborative Professional Influence, Supporting Professional Learning, and Monitoring and Using Evidence for Instructional Improvement. Responses were measured using a five-point scale ranging from 1 (Very Low) to 5 (Very High). The questionnaire underwent expert validation, pilot testing with comparable teachers excluded from the main study, and internal consistency reliability assessment. Revisions ensured clarity, relevance, and alignment with the study constructs. Semi-structured individual interviews were also used to obtain qualitative explanations of the quantitative findings.

Data Gathering Procedure

Data collection commenced after securing the necessary institutional, research ethics, and division-level approvals and coordinating with participating school heads. Selected teachers were informed of the study's objectives, procedures, confidentiality measures, voluntary participation, and withdrawal rights before providing informed consent. The structured questionnaires were administered to 300 respondents, after which completed responses were retrieved, checked for completeness, coded, and organized for statistical analysis. Following the quantitative analysis, 30 selected teachers participated in individual interviews designed to explain and contextualize the survey findings. With participants' consent, interviews were audio-recorded, transcribed, and anonymized. All collected data were securely stored, with access limited to authorized researchers.

Data Analysis

Quantitative data were analyzed using descriptive and inferential statistics. Frequency and percentage described respondents' characteristics, while mean and standard deviation determined the levels of AI readiness and teacher instructional leadership. Pearson product-moment correlation examined the strength and direction of relationships between the study variables, while multiple linear regression identified significant statistical predictors of instructional leadership among the five AI readiness dimensions. Relevant regression assumptions, including linearity, independence of errors, normality of residuals, homoscedasticity, multicollinearity, and influential observations, were assessed before interpreting the results. Qualitative interview transcripts underwent thematic analysis involving data familiarization, coding, categorization, theme development, and interpretation. Quantitative findings informed the interview questions and subsequent qualitative explanations. Integration was undertaken through connecting, building, and merging procedures to identify convergence, complementarity, and divergence between statistical findings and participants' experiences. Integrated interpretations were developed to explain observed relationships and identify implications for professional development and responsible AI implementation. Methodological rigor was supported through proportionate sampling, instrument validation, pilot testing, reliability assessment, systematic thematic analysis, reflexive documentation, peer review, and an audit trail. All quantitative relationships and predictors were interpreted as statistical associations rather than causal effects.

Ethical Consideration

The study adhered to established research ethics by obtaining the required institutional permissions and ethical approval before data collection. All participants provided informed consent and were assured of voluntary participation, confidentiality, and the right to withdraw in accordance with the approved research protocol. The identities of the 300 survey respondents and 30 interview participants were protected through anonymization, participant coding, restricted access, and secure data storage. Separate consent was obtained for interview audio recording. Fair participant selection and risk minimization were observed, and participants were assured that their involvement would not affect their employment or professional relationships. Research integrity was maintained throughout data collection, analysis, interpretation, and reporting.

3. RESULTS AND DISCUSSION

3.1 Levels of Artificial Intelligence Readiness and Teacher Instructional Leadership

3.1.1 Level of Artificial Intelligence Readiness

The findings revealed a Very High level of AI readiness among public elementary school teachers (M = 4.465, SD = 0.444). Among the five dimensions, AI Foundations and Applications obtained the highest mean (M = 4.592, SD = 0.495), followed by Human-Centered Mindset (M = 4.511, SD = 0.556), Ethics of AI (M = 4.431, SD = 0.583), and AI Pedagogy (M = 4.407, SD = 0.572). AI for Professional Learning recorded the lowest mean (M = 4.384, SD = 0.586), although it remained within the Very High category. These results indicate that teachers generally perceived themselves as highly prepared to understand and integrate AI into their professional responsibilities, particularly in foundational knowledge and practical applications. The findings align with Miao and Cukurova (2024), who emphasized the integration of technological knowledge, ethical awareness, pedagogical competence, and professional learning in developing teachers' AI readiness. Similarly, Celik et al. (2022) highlighted the educational opportunities and professional considerations associated with AI integration. Celik (2023) further demonstrated the importance of combining technological, pedagogical, and ethical knowledge when incorporating AI-based tools into instruction. The comparatively lower rating for AI for Professional Learning suggests an opportunity to strengthen continuing professional development. Ding et al. (2024) and Yue et al. (2024) likewise emphasized structured learning experiences and the development of AI-related pedagogical competencies. Nevertheless, the findings represent self-reported readiness rather than objectively demonstrated AI proficiency.

3.1.2 Level of Teacher Instructional Leadership

Teacher instructional leadership was rated Very High overall (M = 4.524, SD = 0.450). Supporting Professional Learning received the highest mean (M = 4.628, SD = 0.496), followed by Monitoring and Using Evidence for Instructional Improvement (M = 4.597, SD = 0.478) and Collaborative Professional Influence (M = 4.534, SD = 0.560). Setting Instructional Direction (M = 4.434, SD = 0.560) and Supporting Instructional Improvement (M = 4.424, SD = 0.538) obtained comparatively lower ratings but remained within the Very High category. These results indicate strong perceived engagement in professional learning, collaborative activities, and evidence-informed instructional practices. The findings are consistent with Dorukbaşı and Cansoy (2024), who established significant relationships among instructional leadership, teacher professional learning, and instructional practices. Similarly, Thien and Liu (2024) identified the importance of teacher self-efficacy in understanding the relationship between instructional leadership and professional learning. The collaborative dimension is further supported by de Jong et al. (2022), who emphasized professional sharing, experimentation, and collaborative instructional development. Tan et al. (2025) also highlighted the need to strengthen teachers' professional development in response to increasing AI integration. These perspectives suggest that structured collaboration and continuous professional learning are relevant to sustaining instructional leadership, although the present findings reflect teachers' perceptions rather than independently observed leadership performance.

3.2 Relationship and Predictive Contributions of Artificial Intelligence Readiness

3.2.1 Relationship Between Artificial Intelligence Readiness and Teacher Instructional Leadership

The analysis revealed a strong positive and statistically significant relationship between overall AI readiness and teacher instructional leadership ($r = .806$, $p < .001$). Accordingly, the null hypothesis of no significant relationship was rejected. The findings indicate that teachers reporting higher AI readiness also tended to report stronger instructional leadership. However, the correlation represents an overall association between the two constructs and does not establish identical relationships among their individual dimensions. The findings are broadly consistent with Wang et al. (2023), who reported positive relationships between teachers' AI readiness and AI-enhanced educational innovation. Similarly, Du et al. (2024) demonstrated the relevance of AI literacy, ethical awareness, and professional learning to teachers' engagement with AI technologies. Yue et al. (2024) and Somabut et al. (2025) further emphasized the importance of technological preparedness, pedagogical competence, and institutional support. Al Darayseh (2023) likewise identified positive associations among science teachers' AI acceptance, self-efficacy, perceived usefulness, and behavioral intentions. Although these studies examined different outcomes, they provide contextual support for understanding the relevance of AI preparedness to teachers' professional activities. The observed relationship in the present study remains correlational and does not establish causation.

3.2.2 Artificial Intelligence Readiness Dimensions as Statistical Predictors of Teacher Instructional Leadership

Multiple linear regression revealed a statistically significant model, $F(5, 294) = 149.20$, $p < .001$, explaining 71.7% of the variance in teacher instructional leadership ($R^2 = .717$; adjusted $R^2 = .713$). AI Foundations and Applications emerged as the strongest significant positive predictor ($B = .451$, $\beta = .497$, $p < .001$), followed by AI Pedagogy ($B = .225$, $\beta = .286$, $p < .001$) and Human-Centered Mindset ($B = .195$, $\beta = .241$, $p < .001$). In contrast, Ethics of AI ($B = .049$, $\beta = .063$, $p = .155$) and AI for Professional Learning ($B = -.063$, $\beta = -.082$, $p = .071$) did not demonstrate statistically significant unique predictive contributions when the other dimensions were controlled. These findings suggest that foundational AI knowledge, pedagogical application, and human-centered decision-making have stronger unique statistical associations with instructional leadership than the remaining dimensions. Wang et al. (2023) and Yue et al. (2024) emphasized the relevance of AI-related competencies and pedagogical preparedness to teachers' professional innovation and educational practices. Celik (2023) similarly demonstrated that technological knowledge becomes more meaningful for instructional integration when combined with pedagogical and ethical considerations. Ding et al. (2024) supported the value of practical, case-based AI professional development, while Du et al. (2024) and Somabut et al. (2025) highlighted the importance of professional learning and institutional conditions. The nonsignificant contributions of Ethics of AI and AI for Professional Learning do not indicate that these dimensions are unimportant; rather, they did not make statistically significant independent contributions within the specified regression model.

3.3 Qualitative Findings on Teachers' AI Readiness and Instructional Leadership

3.3.1 Experiential Learning, Continuous Practice, and Peer-Supported Exploration

The qualitative findings indicated that teachers developed AI readiness through independent exploration, repeated practice, practical application, and collaboration with colleagues.

Participants described becoming more familiar with AI tools through experimentation, instructional preparation, and exchanges of practical knowledge with fellow teachers. These experiences suggest that perceived readiness developed progressively through continuing engagement rather than a single training experience. The findings are consistent with Miao and Cukurova (2024), whose competency framework emphasizes continuing development across technological, pedagogical, ethical, and professional learning dimensions. Sperling et al. (2024) likewise highlighted the importance of developing practical, epistemic, and ethical AI knowledge in teacher education. Tan et al. (2025) reinforced the need for sustained professional development that responds to teachers' actual instructional requirements. These perspectives support the importance of experiential learning, peer mentoring, collaborative lesson planning, and opportunities for teachers to evaluate AI applications in authentic instructional situations.

3.3.2 AI-Supported Instructional Preparation, Efficiency, and Creativity

The second qualitative theme revealed that teachers used AI to generate lesson ideas, instructional activities, assessment questions, explanations, and alternative teaching strategies. Participants described AI as a supplementary resource that could assist instructional preparation and expand creative possibilities. However, they also emphasized the need to review and adapt generated materials before incorporating them into classroom instruction. These findings are supported by Powell and Courchesne (2024), who demonstrated the potential of ChatGPT to assist in developing elementary science lesson plans while identifying limitations requiring professional review. Similarly, Lee and Zhai (2024) examined how preservice elementary teachers used ChatGPT in science lesson planning and considered its pedagogical implications. Lo (2023) identified the potential of ChatGPT to assist teachers in preparing learning materials while recognizing the risks of inaccurate information. Sperling et al. (2024) further emphasized the importance of practical knowledge and professional judgment in AI-supported educational work. Collectively, these studies reinforce the need to align AI-generated instructional materials with curriculum requirements, learning objectives, and learners' developmental needs.

3.3.3 Professional Judgment and Contextualization of AI-Generated Instructional Content

The third theme emphasized teachers' responsibility to evaluate, revise, simplify, and contextualize AI-generated content. Participants described checking information for accuracy, modifying explanations according to learners' comprehension levels, and aligning instructional materials with curriculum competencies. The findings indicate that teachers viewed AI-generated content as instructional support requiring professional evaluation rather than as materials suitable for immediate classroom use. The findings align with Farrokhnia et al. (2024), who identified instructional opportunities and challenges associated with ChatGPT, including inaccurate information and potential bias. Kasneci et al. (2023) similarly emphasized human oversight and critical evaluation when using large language models in education. UNESCO (2023) highlighted the importance of contextual relevance, equity, and educational value in technology integration. Chiu et al. (2023) further identified opportunities and challenges associated with artificial intelligence in educational settings, reinforcing the need for appropriate implementation strategies. These perspectives emphasize that teachers must retain responsibility for ensuring factual accuracy, curriculum alignment, inclusiveness, and developmental appropriateness when integrating AI into instruction.

3.3.4 Challenges Involving AI Accuracy, Prompt Literacy, Accessibility, Privacy, and Overdependence

The fourth theme identified continuing challenges affecting responsible AI integration. Participants reported inaccurate AI-generated information, difficulties developing effective prompts, unreliable internet connectivity, limited access to devices, concerns regarding confidential learner information, and the possibility of excessive dependence on automated outputs. These experiences indicate that teachers' perceived readiness was accompanied by practical, technological, and ethical constraints. The findings are consistent with Kasneci et al. (2023), who emphasized the risks of inaccurate information, bias, and insufficient human oversight in AI-generated educational content. Sperling et al. (2024) highlighted the need for practical and ethical AI literacy, while Lo (2023) identified concerns involving the reliability of AI-generated information. Farrokhnia et al. (2024) similarly discussed privacy concerns and the importance of critically evaluating ChatGPT outputs. UNESCO (2023) emphasized the importance of equitable technological access, and Somabut et al. (2025) identified infrastructure and institutional support as important considerations in teachers' readiness for generative AI. These findings underscore the relevance of practical training, ethical safeguards, institutional guidance, and equitable access to educational technologies.

3.4 Integration of Quantitative and Qualitative Findings

The integration of quantitative and qualitative findings revealed complementary patterns across the study variables. The Very High AI readiness rating ($M = 4.465$, $SD = 0.444$) was contextualized by teachers' experiences involving practical AI exploration, instructional preparation, professional collaboration, and content adaptation. Similarly, the Very High teacher instructional leadership rating ($M = 4.524$, $SD = 0.450$) was complemented by accounts of professional learning, collaborative influence, and instructional decision-making. The strong positive relationship between the variables ($r = .806$, $p < .001$) was consistent with participants' descriptions of using AI to support professional and instructional activities. Furthermore, the significant predictive contributions of Human-Centered Mindset, AI Foundations and Applications, and AI Pedagogy corresponded with qualitative accounts emphasizing practical competence, pedagogical application, and professional judgment. The nonsignificant unique predictors, Ethics of AI and AI for Professional Learning, remained relevant to participants' experiences despite their nonsignificant regression coefficients. The integrated findings are consistent with UNESCO's (2024) AI Competency Framework for Teachers, which emphasizes the interdependence of technological knowledge, ethical responsibility, human agency, pedagogical competence, and professional learning. Du et al. (2024) similarly highlighted the role of AI literacy and ethical awareness in teachers' professional engagement with AI. Kasneci et al. (2023) and Farrokhnia et al. (2024) reinforced the importance of professional oversight and critical evaluation, while UNESCO (2023) emphasized equitable and contextually appropriate educational technology implementation. Collectively, these perspectives support the need for sustained, practice-oriented professional development, collaborative instructional improvement, institutional guidance, and ethical safeguards. Nevertheless, the integrated findings explain and contextualize teachers' reported experiences and statistical associations without establishing causal relationships or independently verifying instructional effectiveness.

4. CONCLUSIONS AND RECOMMENDATIONS

The study established that public elementary school teachers in Tacurong City Division demonstrated very high self-reported levels of artificial intelligence (AI) readiness and teacher instructional leadership. A strong, positive, and statistically significant relationship was identified between the two constructs, with AI Foundations and Applications, AI Pedagogy, and Human-Centered Mindset emerging as significant positive predictors of instructional leadership. Although Ethics of AI and AI for Professional Learning did not demonstrate significant unique predictive contributions, both remained relevant to teachers' professional practices. Qualitative findings further revealed that AI readiness developed through experiential learning, continuous practice, collaboration, and responsible instructional application. Teachers also emphasized the importance of professional judgment, contextualizing AI-generated materials, and addressing technological and ethical challenges. Collectively, the findings indicate that AI readiness is closely associated with perceived instructional leadership and highlight the importance of integrating technological competence, pedagogical expertise, and human-centered practices in public elementary education.

Based on the findings, the Schools Division of Tacurong City and school administrators should strengthen AI readiness and instructional leadership through sustained, practice-oriented professional development programs. Training initiatives should prioritize AI Foundations and Applications, AI Pedagogy, and Human-Centered Mindset, emphasizing AI-assisted lesson planning, instructional material development, assessment preparation, and curriculum alignment. School heads should establish collaborative professional learning opportunities, peer mentoring, and instructional coaching to encourage responsible AI integration and knowledge sharing. Clear institutional guidelines should address data privacy, ethical considerations, information accuracy, and appropriate reliance on AI-generated content. Equitable access to digital resources, reliable connectivity, and technical assistance should also be strengthened. Furthermore, schools should monitor and evaluate the implementation of AI-related professional development initiatives to determine their effectiveness in supporting instructional practices. Future researchers should investigate the roles of institutional support, technological accessibility, and individual AI readiness dimensions across different educational settings.

The study was limited to public elementary school teachers in Tacurong City Division, restricting the generalizability of its findings to other educational contexts. Quantitative data were based on self-reported assessments, which may be influenced by response biases and differences in teachers' perceptions and AI familiarity. The nonexperimental correlational design identified statistical relationships and predictors but did not establish causality. Qualitative findings reflected selected participants' experiences and were intended to contextualize rather than represent the entire teacher population. Furthermore, synthesized qualitative statements require verification against original interview transcripts. Future studies may employ broader samples, objective competency assessments, classroom observations, longitudinal approaches, and intervention-based designs to strengthen the evidence.

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