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Leading in the Age of Algorithms: A Mixed-Methods Study of School Leaders' AI Awareness, Policy Readiness, and Ethical Leadership Practices in the DepEd Division of Tacurong City

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ABSTRACT

This study examined artificial intelligence (AI) awareness, policy readiness, and ethical leadership practices among public school administrators in the Department of Education Schools Division of Tacurong City, Philippines, and explored their interrelationships and implementation experiences. An explanatory sequential mixed-methods design combined a descriptive-correlational survey of 115 administrators selected through complete enumeration with in-depth interviews involving 10 purposively selected participants and a focus group discussion involving four of the interviewees. Survey data were analyzed using descriptive statistics and Pearson's correlation, while qualitative accounts underwent thematic analysis. Respondents reported very high AI awareness (M = 4.368) and ethical leadership practices (M = 4.283), and high policy readiness (M = 4.127). All three relationships were positive and statistically significant: AI awareness with policy readiness (r = .772), AI awareness with ethical leadership (r = .804), and policy readiness with ethical leadership (r = .769), all $p < .001$. Participants highlighted the importance of human judgment and verification alongside gaps in practical AI evaluation, stakeholder consultation, monitoring, infrastructure, and policy implementation. The findings indicate that responsible AI integration requires aligned technological competence, institutional preparedness, and ethical governance. The study recommends targeted AI literacy training, school-level guidelines, quality assurance, and participatory monitoring. Its single-division, self-report, cross-sectional design limits generalizability and causal inference. By informing human-centered leadership and accountable policy implementation, the study supports educational and institutional sustainability aligned with SDG 4 (Quality Education), SDG 9 (Industry, Innovation and Infrastructure), and SDG 16 (Peace, Justice and Strong Institutions).

Keywords: *AI Awareness, Educational Leadership, Ethical Leadership, Mixed Methods, Policy Readiness, Responsible AI*

1. INTRODUCTION

Artificial intelligence (AI) is reshaping educational leadership by supporting administrative efficiency, instructional management, data-informed decision-making, and institutional planning. However, its increasing application presents challenges involving algorithmic bias, data privacy, transparency, accountability, and human oversight (Karakose & Tülübaş, 2024; Sposato, 2025). Responsible AI integration therefore requires school leaders to possess sufficient technological awareness, institutional policy readiness, and ethical leadership competencies. International frameworks emphasize human-centered AI governance, professional capacity-building, and safeguards that protect educational stakeholders (Miao & Holmes, 2023; Miao & Cukurova, 2024). In the Philippines, the Department of Education (DepEd) has advanced AI integration through the Education Center for AI Research and the issuance of foundational guidelines promoting ethical, inclusive, and accountable AI use in basic education (Department of Education, 2025, 2026). Against this background, the present study examines AI awareness, policy readiness, and ethical leadership practices among public school administrators in the DepEd Division of Tacurong City.

Research Problem

The increasing adoption of AI in educational institutions requires school leaders to balance technological innovation with ethical accountability and institutional preparedness. Although AI offers opportunities to improve educational management, challenges remain in evaluating AI-generated information, protecting sensitive data, managing algorithmic bias, and maintaining professional judgment (Karakose & Tülübaş, 2024; Miao & Holmes, 2023). Recent literature further emphasizes that effective AI governance depends on leadership competencies, institutional safeguards, transparent decision-making, and stakeholder participation (Alfredo et al., 2024; Ho, 2026). Despite these developments, context-specific empirical evidence remains limited regarding how school administrators' AI awareness, policy readiness, and ethical leadership practices are interconnected within Philippine public basic education. Existing research establishes the relevance of AI competencies and institutional governance, but further investigation is needed to understand how these dimensions relate within localized educational settings (Chiu et al., 2024; Sposato, 2025). Accordingly, this study addresses the need to examine these relationships and explore school leaders' experiences, challenges, and strategies in implementing responsible AI practices in the DepEd Division of Tacurong City.

Assumptions of the Study

The study is guided by the premise that AI awareness, policy readiness, and ethical leadership practices represent distinct but potentially interrelated dimensions of responsible AI integration. School administrators may differ in their understanding of AI, institutional preparedness, access to resources, and approaches to ethical decision-making. Recent research supports examining technological competencies alongside organizational conditions and ethical safeguards when evaluating AI adoption in education (Chiu et al., 2024; Ho, 2026). The study further recognizes that awareness of AI does not necessarily ensure institutional readiness or consistent ethical practice. Accordingly, the quantitative component examines associations among the variables without assuming causality, while the qualitative component provides contextual explanations of school leaders' experiences and practices.

Objectives of the Study

This study aims to examine the AI awareness, policy readiness, and ethical leadership practices of public school administrators in the DepEd Division of Tacurong City, including school heads and department heads. Specifically, it seeks to assess AI awareness in terms of understanding and knowledge of AI, AI use and evaluation, and ethical and responsible AI awareness; determine

policy readiness in terms of policy knowledge and awareness, institutional policy preparedness, and governance and risk management; and evaluate ethical leadership practices concerning ethical role modeling, fairness and equity in decision-making, ethical communication, accountability and responsibility, and people-oriented ethical leadership. Furthermore, the study seeks to determine the significant relationships between AI awareness and policy readiness, AI awareness and ethical leadership practices, and policy readiness and ethical leadership practices. Finally, it explores school leaders' experiences, challenges, ethical concerns, and strategies in promoting responsible AI integration and implementing related educational policies.

Theoretical or Conceptual Basis

The study is anchored on three complementary theoretical perspectives: the Technology Acceptance Model (TAM), Diffusion of Innovations (DOI) Theory, and Ethical Leadership Theory. Together, these frameworks explain individual technology acceptance, institutional adoption, and the ethical responsibilities associated with AI integration. The Technology Acceptance Model (TAM) provides a perspective for understanding AI awareness and acceptance through perceived usefulness and perceived ease of use. Kong et al. (2024) demonstrated the relevance of these constructs in examining teachers' acceptance of generative AI technologies. Within the present study, TAM provides a basis for understanding school leaders' awareness, evaluation, and potential adoption of AI applications. Diffusion of Innovations (DOI) Theory explains how technological innovations are communicated, adopted, and integrated into organizational practices. Its emphasis on relative advantage, compatibility, complexity, trialability, and observability provides a foundation for understanding institutional preparedness and policy implementation. Hsieh et al. (2026) applied this perspective to examine digital instructional leadership and AI integration in K–12 educational settings. In the present study, DOI informs the examination of policy readiness, organizational support, and institutional AI governance. Ethical Leadership Theory emphasizes integrity, fairness, accountability, transparency, and responsible organizational conduct. Özdoğru and Sarıer (2024) established the relevance of principals' ethical leadership to teachers' organizational attitudes and behaviors, while Ho (2026) emphasized ethical stewardship, human oversight, data protection, and equity in AI-integrated schools. These principles guide the assessment of ethical leadership practices among school administrators. Collectively, these perspectives establish a conceptual foundation for examining the relationships among AI awareness, policy readiness, and ethical leadership practices. They recognize that technological acceptance and institutional preparedness must be accompanied by ethical safeguards and human-centered decision-making to support responsible AI integration.

The study aligns with three United Nations Sustainable Development Goals (SDGs): SDG 4 – Quality Education, SDG 9 – Industry, Innovation and Infrastructure, and SDG 16 – Peace, Justice and Strong Institutions (United Nations Department of Economic and Social Affairs, 2025). It supports SDG 4 through responsible educational technology integration and leadership development; SDG 9 by promoting educational innovation and digital readiness; and SDG 16 by strengthening transparency, accountability, data privacy, and ethical governance. The study contributes to educational, technological, and institutional sustainability by providing evidence to guide AI capacity-building, governance mechanisms, and policy implementation. Its findings may assist DepEd policymakers and school leaders in promoting inclusive, accountable, and human-centered AI integration (Department of Education, 2026; Miao & Cukurova, 2024).

2. METHODOLOGY

Research Design

The study utilized an explanatory sequential mixed-methods design with quantitative priority, following Creswell and Plano Clark (2023). The quantitative phase employed a descriptive-correlational approach to assess AI awareness, policy readiness, and ethical leadership practices and determine their significant relationships. The qualitative phase involved semi-structured in-depth interviews (IDIs) and a focus group discussion (FGD) to explain the quantitative findings, particularly lower-rated indicators, notable patterns, and emerging concerns. The design examined relationships among variables without establishing causality.

Research Locale or Study Setting

The study was conducted in the Department of Education (DepEd), Schools Division of Tacurong City, Philippines, covering public elementary and secondary schools within the Division. The setting provided the institutional context for examining school administrators' technological awareness, preparedness for AI-related educational policies, and ethical leadership practices in managing AI integration.

Participants or Data Sources

The quantitative phase involved 115 public school administrators selected through complete enumeration, comprising 14 secondary school heads, 35 elementary school heads, 56 secondary school department heads, and 10 elementary school department heads. The qualitative phase included ten purposively selected participants for IDIs, representing school principals, teachers-in-charge, department heads, master teachers, and an assistant to the principal, with professional experience ranging from 5 to 30 years. Four of these participants also participated in the FGD. Qualitative participants were selected based on their relevant experiences and quantitative findings requiring further explanation, particularly stakeholder participation, AI monitoring, and responses to inaccurate or harmful AI-generated outputs.

Research Instruments or Materials

The study utilized a researcher-adapted and contextualized survey questionnaire based on established AI literacy measures, UNESCO AI competency and policy frameworks, and the Ethical Leadership Scale of Brown et al. (2005). The instrument comprised three components assessing AI awareness, policy readiness, and ethical leadership practices using a five-point Likert-type scale. The questionnaire underwent expert review for clarity, relevance, comprehensiveness, and construct alignment. The manuscript reported Cronbach's alpha coefficients of 0.92, 0.91, and 0.94 for the three respective components. Semi-structured interview and FGD guides were also developed and reviewed by experts to explore participants' experiences, challenges, ethical concerns, and leadership strategies concerning AI integration and policy implementation.

Data Gathering Procedure

Following ethics approval and authorization from the DepEd Division of Tacurong City, the researcher administered the survey questionnaire to all 115 eligible school administrators. Quantitative responses were collected, organized, and analyzed to identify patterns and relationships among the study variables. Based on these findings, ten participants were purposively selected for individual interviews, while four of the same participants participated in a separate FGD. The interview questions were refined using the quantitative results to explore areas requiring further explanation. Qualitative responses were documented, transcribed, and organized, with interview and FGD data maintained as distinct sources. Voluntary participation, informed consent, and confidentiality were observed throughout data collection.

Data Analysis

Quantitative data were analyzed using frequency counts, means, standard deviations, and Pearson's product-moment correlation coefficient. Descriptive statistics assessed the levels of AI awareness, policy readiness, and ethical leadership practices, while Pearson's r determined the significance of relationships among these variables at the 0.05 significance level. Qualitative data were analyzed through thematic analysis following Braun and Clarke (2022), involving familiarization, initial coding, categorization, theme development, review, and interpretation. The resulting themes were integrated with the quantitative findings to explain observed relationships, contextual challenges, and leadership practices. Methodological quality was supported through complete enumeration, expert validation, pilot testing, reliability assessment, appropriate statistical procedures, careful participant selection, documentation, and peer review.

Ethical Consideration

The study secured ethics approval and authorization from the DepEd Division of Tacurong City before data collection. Participation was voluntary and based on informed consent, with participants permitted to withdraw without penalty before data anonymization. Participant identities were replaced with codes to maintain confidentiality, while responses and interview records were securely stored and used exclusively for academic purposes. The study observed the Philippine Data Privacy Act of 2012 and applicable institutional and DepEd research ethics guidelines.

3. RESULTS AND DISCUSSION

3.1 Artificial Intelligence Awareness Among School Administrators

School administrators demonstrated a very high level of AI awareness, with a reported overall mean of 4.368 and standard deviation of 0.680. The three dimensions assessed were understanding and knowledge of AI, AI use and evaluation, and ethical and responsible AI awareness. Although all were rated very high, practical AI evaluation received comparatively lower ratings.

3.1.1 Understanding and Knowledge of Artificial Intelligence

The respondents demonstrated a very high level of understanding and knowledge of AI (M = 4.379, SD = 0.601). Recognizing the importance of human judgment when using AI-generated information received the highest rating (M = 4.452), while identifying AI applications relevant to school leadership obtained the lowest (M = 4.296). These findings indicate strong perceived conceptual awareness but comparatively lower familiarity with specific administrative applications. The findings emphasize the importance of connecting conceptual AI knowledge with practical educational leadership competencies. Miao and Holmes (2023) stressed human agency, responsible technology use, and critical evaluation of AI-generated information, while OECD (2023) underscored the importance of effective digital education governance. Similarly, Chiu et al. (2024) distinguished AI literacy from the ability to apply AI knowledge competently. These perspectives support strengthening school administrators' practical understanding of AI while preserving professional judgment.

3.1.2 Artificial Intelligence Use and Evaluation

AI use and evaluation obtained a very high rating (M = 4.283, SD = 0.658). Understanding the need to verify AI-generated information received the highest mean (M = 4.374), whereas distinguishing reliable from potentially unreliable AI-generated information recorded the lowest (M = 4.209). The findings reveal a difference between recognizing the importance of verification and respondents'

perceived ability to evaluate AI-generated outputs. This finding highlights the need for practical AI literacy development, particularly in verifying information accuracy, assessing source reliability, and identifying misleading outputs. Du et al. (2024) emphasized the significance of AI literacy in teachers' professional learning, while Kasneci et al. (2023) discussed critical thinking, fact-checking, and human oversight in educational AI use. Yan et al. (2024) also identified transparency, technological readiness, and ethical evaluation as important implementation considerations. Similarly, OECD and European Commission (2026) highlighted the competencies required to understand, critically evaluate, and responsibly use AI technologies.

3.1.3 Ethical and Responsible Artificial Intelligence Awareness

Ethical and responsible AI awareness was reported as very high (M = 4.443, SD = 0.782). Awareness of data privacy risks received the highest individual rating (M = 4.443), while transparency in AI-assisted school decision-making obtained the lowest (M = 4.252). The respondents recognized the importance of protecting confidential information, preventing discrimination, and retaining human judgment when using AI. These findings demonstrate the relevance of ethical safeguards in AI-supported educational administration. Ho (2026) identified privacy, transparency, accountability, and human oversight as central responsibilities of school principals. Zhu et al. (2025) similarly emphasized risks involving data leakage, algorithmic bias, and opaque AI systems. Baker and Hawn (2022) further established the importance of addressing algorithmic bias in educational technologies. Together, these studies reinforce the need to strengthen transparent decision-making alongside data privacy awareness.

3.2 Artificial Intelligence Policy Readiness Among School Administrators

The respondents demonstrated high overall AI policy readiness (M = 4.127, SD = 0.723). Policy knowledge and awareness received the highest dimension rating, followed by institutional policy preparedness and governance and risk management. These findings indicate relatively stronger policy awareness than institutional mechanisms for implementing and monitoring AI use.

3.2.1 Policy Knowledge and Awareness

Policy knowledge and awareness obtained a high rating (M = 4.193, SD = 0.675). Awareness of the risks associated with unregulated AI use received the highest mean (M = 4.252), whereas regularly monitoring emerging AI policies and guidelines obtained the lowest (M = 4.122). The results indicate that administrators recognize AI-related risks but report comparatively less consistent monitoring of evolving policies. These findings suggest the importance of regular policy orientations and continuous professional updates. Kim et al. (2026) identified policy guidance and institutional preparedness as major concerns among educational leaders. Adams and Thompson (2025) emphasized the evolving responsibilities of school leaders in AI integration, while Roberts and Richardson (2025) highlighted the importance of clear expectations and transparent institutional policies. These studies support strengthening policy communication and administrators' ability to translate emerging guidance into school-level practices.

3.2.2 Institutional Policy Preparedness

Institutional policy preparedness received a high rating (M = 4.099, SD = 0.793). The capacity to guide teachers and personnel regarding responsible AI use obtained the highest mean (M = 4.183), while having procedures to evaluate AI tools before implementation received the lowest (M = 4.026). The findings indicate that administrators perceived themselves as capable of

providing guidance, although formal AI evaluation mechanisms were comparatively less developed. The results emphasize the need for systematic institutional procedures addressing AI tool selection, privacy protection, academic integrity, and algorithmic fairness. Somabut et al. (2025) identified infrastructure, institutional support, AI knowledge, and formal policy availability as important dimensions of readiness. An et al. (2025) similarly highlighted the role of institutional guidelines in responsible AI adoption. The European Commission (2022) further provided ethical guidance for educators and school leaders concerning AI evaluation, transparency, and responsible educational use.

3.2.3 Governance and Risk Management

Governance and risk management obtained a high rating (M = 4.090, SD = 0.703). Maintaining human judgment in AI-assisted administrative decisions received the highest mean (M = 4.322). In contrast, stakeholder participation (M = 3.930), responses to AI-related errors or harmful outcomes (M = 3.965), and AI monitoring mechanisms (M = 3.983) received the lowest ratings. These results identify comparatively weaker areas in participatory governance, monitoring, and institutional risk response. The findings indicate that responsible AI governance requires more than individual awareness of ethical responsibilities. Sposato (2025) emphasized comprehensive institutional frameworks for AI implementation and risk management, while Miao and Cukurova (2024) identified ethical competence and human agency as essential aspects of responsible AI use. Funa and Gabay (2025) also highlighted the importance of clear guidelines, stakeholder participation, and implementation safeguards. Strengthening these mechanisms may improve accountability and school-level readiness for AI-related risks.

3.3 Ethical Leadership Practices in Artificial Intelligence Integration

Ethical leadership practices were rated very high overall (M = 4.283, SD = 0.696). All five dimensions received very high ratings, with fairness and decision-making obtaining the highest mean and ethical role modeling the lowest. The findings reflect favorable self-reported ethical leadership practices, although selected indicators reveal areas requiring further institutional attention.

3.3.1 Ethical Role Modeling

Ethical role modeling received a very high rating (M = 4.263, SD = 0.676). Demonstrating responsible AI behavior and accountability for AI-assisted decisions obtained the highest ratings (both M = 4.296), while considering ethical implications before using AI in school decisions received the lowest (M = 4.217). These findings reflect administrators' perceived commitment to responsible conduct, with comparatively less emphasis on systematic ethical assessment before AI use. The findings support incorporating deliberate ethical evaluation into educational decision-making. Polat et al. (2025) identified fairness, transparency, accountability, and privacy as central issues in ethical AI leadership. Ho (2026) similarly emphasized ethical stewardship and responsible institutional governance, while Michopoulou and Gan (2025) highlighted human rights, equity, and accountability in AI-enabled schools. These perspectives reinforce the importance of integrating ethical reflection into leadership practices.

3.3.2 Fairness and Equity in Decision-Making

Fairness and equity in decision-making received the highest ethical leadership dimension rating (M = 4.311, SD = 0.626). Retaining professional judgment rather than automatically accepting AI-

generated recommendations obtained the highest mean (M = 4.374). Considering the effects of AI decisions on different stakeholders and preventing unfair disadvantages both received comparatively lower means (M = 4.278). The results highlight the importance of assessing algorithmic fairness while maintaining human oversight. Renta-Davids et al. (2025) emphasized critically examining AI-generated recommendations and addressing potential biases in educational leadership. Han et al. (2026) identified ethical concerns and limited student representation in AI adoption decisions, while Baker and Hawn (2022) discussed educational inequalities associated with algorithmic bias. These studies reinforce the need for inclusive and equitable AI-assisted decision-making.

3.3.3 Ethical Communication

Ethical communication received a very high rating (M = 4.280, SD = 0.723). Openly discussing AI-related ethical implications with teachers and personnel obtained the highest mean (M = 4.357), while explaining the reasons behind important AI-assisted decisions received the lowest (M = 4.226). The findings indicate stronger reported engagement in ethical discussions than in communicating the rationale for specific AI-related decisions. These findings emphasize the importance of transparency and explainability in institutional AI practices. Feldman-Maggor et al. (2025) demonstrated the relevance of domain-specific explanations to teachers' trust and acceptance of AI recommendations. Ho (2026) likewise identified transparency and accountability as essential dimensions of ethical school leadership. Clear communication regarding AI use and human review may strengthen institutional trust and responsible decision-making.

3.3.4 Accountability and Responsibility

Accountability and responsibility obtained a very high rating (M = 4.291, SD = 0.699). Prioritizing ethically appropriate decisions over AI recommendations received the highest mean (M = 4.374), while addressing violations of established ethical standards obtained the lowest (M = 4.157), interpreted as high. These findings demonstrate strong perceived personal responsibility but comparatively less consistent reported action in addressing unethical AI practices. The results suggest that ethical accountability should be supported by formal reporting, monitoring, and enforcement procedures. Funa and Gabay (2025) emphasized institutional guidelines and accountability mechanisms for responsible AI integration. An et al. (2025) and Jiang et al. (2025) similarly identified the importance of clear institutional policies and guidance in addressing implementation challenges. These studies support strengthening procedures for responding to inappropriate or harmful AI use.

3.3.5 People-Oriented Ethical Leadership

People-oriented ethical leadership received a very high rating (M = 4.270, SD = 0.758). Considering the welfare of teachers and personnel obtained the highest mean (M = 4.330), while listening to stakeholders' concerns regarding AI implementation received the lowest (M = 4.191), interpreted as high. The findings indicate that administrators reported strong concern for personnel welfare but comparatively less consistent stakeholder consultation. The findings underscore the importance of meaningful participation in responsible AI adoption. Alfredo et al. (2024) identified limited end-user involvement as a concern in human-centered educational AI development. Fu and Weng (2024) emphasized autonomy, fairness, equity, and stakeholder involvement, while Shen et al. (2025) demonstrated the importance of human values, trust, and

professional autonomy in educational AI systems. These perspectives support more inclusive consultation mechanisms when introducing AI technologies in schools.

3.4 Relationships Among AI Awareness, Policy Readiness, and Ethical Leadership Practices

The correlational analysis identified significant positive relationships among the three study variables. All relationships were statistically significant at the 0.05 level, with AI awareness and ethical leadership practices demonstrating the strongest association.

3.4.1 Relationship Between AI Awareness and Policy Readiness

AI awareness and policy readiness demonstrated a strong positive and statistically significant relationship ($r = 0.772$, $p < .001$). The null hypothesis was rejected, indicating that administrators reporting higher AI awareness also tended to report greater institutional readiness to understand and implement AI-related policies. This relationship suggests that familiarity with AI applications, limitations, and ethical risks is associated with preparedness for institutional AI governance. Salvatierra (2026) reported a positive association between AI awareness and readiness among educational leaders, while Anysiadou and Gkliati (2025) examined the relevance of technology acceptance to school leaders' AI readiness. Somabut et al. (2025) further emphasized AI knowledge and organizational support as important readiness factors. Nevertheless, the present correlation does not establish a causal relationship.

3.4.2 Relationship Between AI Awareness and Ethical Leadership Practices

AI awareness and ethical leadership practices demonstrated a strong positive and statistically significant relationship ($r = 0.804$, $p < .001$), representing the strongest association among the three variable pairs. The null hypothesis was rejected, indicating that administrators with higher reported AI awareness also tended to report stronger ethical leadership practices. This finding supports the importance of integrating AI literacy with ethical decision-making competencies. Ho (2026) emphasized AI-related capacity-building, human oversight, data protection, and equity in school leadership, while Al-Abdullatif (2025) examined AI awareness, ethics, evaluation, and responsible use among K–12 educators. Du et al. (2024) also identified relationships between AI literacy and ethical awareness in teacher learning. The association reinforces the relevance of ethical AI education but does not demonstrate that awareness directly improves leadership behavior.

3.4.3 Relationship Between Policy Readiness and Ethical Leadership Practices

Policy readiness and ethical leadership practices demonstrated a strong positive and statistically significant relationship ($r = 0.769$, $p < .001$). The null hypothesis was rejected, indicating that administrators reporting greater institutional readiness for AI integration also tended to report stronger ethical leadership practices. The findings indicate an association between institutional preparedness and responsible leadership. Richardson et al. (2025) emphasized the policy and leadership challenges surrounding AI adoption in schools, while Sposato (2025) highlighted the need for institutional frameworks addressing AI governance and ethical risks. Ho (2026) similarly identified policy alignment, accountability, and human oversight as important aspects of ethical AI leadership. However, the correlational design does not establish the direction or causality of this relationship.

3.5 Qualitative Findings on School Leaders' Experiences, Challenges, and Strategies

The qualitative phase involved ten participants in individual in-depth interviews, with four of these participants also participating in a focus group discussion. Three major categories emerged: experiences in using AI, challenges affecting implementation, and strategies for promoting responsible and ethical AI integration.

3.5.1 School Leaders' Experiences in Artificial Intelligence Integration

The qualitative findings identified three recurring experiences: using AI as a support tool for instructional planning and administrative decision-making; recognizing the importance of human judgment, professional accountability, and contextualization; and developing awareness of ethical, legal, and responsible AI use. Participants described AI as useful for preparing instructional materials, supporting administrative tasks, and generating information. However, they consistently emphasized that AI-generated outputs require verification and adaptation to actual school and learner needs. These experiences reinforce the importance of maintaining human control over educational decisions. Miao and Holmes (2023) advocated human-centered AI integration, while Alfredo et al. (2024) emphasized balancing automation with human judgment, safety, and reliability. The qualitative accounts help explain why high AI awareness does not necessarily indicate uniformly strong practical AI evaluation skills.

3.5.2 Challenges in Responsible Artificial Intelligence Implementation

Three major challenges emerged from the participants' accounts: limited AI literacy and unequal technological competence, inadequate infrastructure and financial resources, and ambiguity in AI-related policies. Participants reported differences in familiarity with AI tools, limited training opportunities, unreliable connectivity, insufficient devices, and difficulties translating broad guidelines into practical school procedures. They also expressed concerns regarding the accuracy and appropriateness of AI-generated instructional materials. These findings indicate that technological readiness and institutional governance must be strengthened alongside individual AI awareness. Chiu et al. (2024) emphasized the distinction between understanding AI and competently applying it, while Younis (2024) demonstrated the relevance of professional development to AI literacy. Yan et al. (2024) identified technological readiness and ethical safeguards as implementation concerns, while Roberts and Richardson (2025) highlighted leadership and policy challenges in school-level AI adoption. These studies support the need for context-responsive training, equitable access, and clear institutional guidance.

3.5.3 Strategies for Ethical and Responsible Artificial Intelligence Integration

Three major strategies emerged: capacity-building through School Learning Action Cell (SLAC) sessions, mentoring, and peer learning; quality assurance through verification and contextualization of AI-generated outputs; and policy-guided governance involving ethical safeguards, risk management, and monitoring. Participants described hands-on demonstrations, collaborative evaluation of instructional materials, verification against reliable sources, communication of expectations, and protection of confidential information as approaches to responsible AI implementation. These strategies emphasize the integration of professional development, institutional quality assurance, and ethical governance. Funa and Gabay (2025) highlighted AI literacy, policy guidance, and monitoring as important elements of implementation. An et al. (2025) emphasized the need for clear institutional guidelines, while Alfredo et al. (2024) underscored the importance of human control and trustworthy educational

AI systems. The European Commission (2022) and Miao and Cukurova (2024) similarly identified ethical competence, professional learning, and responsible technology use as essential considerations in educational AI adoption.

3.6 Integration of Quantitative and Qualitative Findings

The integration of findings revealed consistently high self-reported levels of AI awareness and ethical leadership, alongside high but comparatively lower policy readiness. Quantitative results identified practical AI evaluation, stakeholder participation, AI monitoring, and responses to harmful outputs as areas receiving lower ratings. Qualitative findings complemented these patterns by describing limited practical training, unequal technological resources, uncertainty regarding policy implementation, and the continuing need for human judgment and professional accountability. Collectively, the findings demonstrate significant associations among AI awareness, policy readiness, and ethical leadership practices, supported by contextual accounts of school leaders' experiences. They indicate that responsible AI integration requires coordinated attention to practical technological competence, institutional preparedness, stakeholder participation, and ethical safeguards. The results are consistent with the study's conceptual foundations concerning technology acceptance, organizational adoption, and ethical leadership, although the cross-sectional correlational design does not establish causal relationships.

4. CONCLUSIONS AND RECOMMENDATIONS

The study concludes that school administrators in the DepEd Division of Tacurong City demonstrated very high AI awareness and ethical leadership practices, alongside high policy readiness. Although respondents recognized the importance of human judgment, privacy, fairness, and accountability, comparatively lower ratings in evaluating AI-generated information, monitoring AI use, responding to harmful outputs, and involving stakeholders indicate areas requiring further institutional attention. Significant positive relationships were established among AI awareness, policy readiness, and ethical leadership practices, with the strongest association observed between AI awareness and ethical leadership. These relationships indicate associations rather than causal effects. Qualitative findings reinforced these results by describing AI as a support tool requiring verification, contextualization, and professional oversight, while identifying challenges involving training, infrastructure, and policy implementation. Collectively, the findings demonstrate that responsible AI integration in public schools requires technological competence, institutional preparedness, and ethical leadership supported by clear governance mechanisms and sustained professional development.

The DepEd Division of Tacurong City should prioritize continuing, practice-based AI literacy programs for school administrators and teachers through School Learning Action Cells, peer mentoring, and hands-on training focused on evaluating AI-generated information, detecting bias, protecting confidential data, and contextualizing educational outputs. School administrators should develop or strengthen institutional AI guidelines aligned with applicable DepEd policies, clearly defining acceptable uses, human oversight requirements, accountability mechanisms, and procedures for addressing inaccurate or harmful outputs. Schools should establish systematic monitoring and quality assurance processes to evaluate AI tools and ensure responsible implementation. Regular stakeholder consultations should be conducted to strengthen transparency, participation, and trust in AI-assisted decisions. Division administrators should also assess technological infrastructure and allocate available resources to address inequalities in connectivity, equipment, and training opportunities. Future

researchers may evaluate the effectiveness of these initiatives across additional school divisions and examine changes in AI readiness and ethical leadership practices over time.

The study was limited to 115 public school administrators in the DepEd Division of Tacurong City, which may restrict the transferability of findings to other educational settings. Quantitative data relied on self-reported assessments of AI awareness, policy readiness, and ethical leadership rather than independently observed practices. The cross-sectional correlational design identified significant relationships but could not establish causality or determine the direction of influence among variables. Qualitative findings were based on ten interview participants, four of whom also participated in the focus group discussion. Future studies may employ broader geographic coverage, longitudinal designs, and additional assessment methods to strengthen the understanding of responsible AI integration in educational leadership.

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