



Deep Learning Integration in ELT for Adolescent Learners in Indonesia

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ABSTRACT

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Artificial intelligence tools have considerable potential to support English language teaching in terms of personalized learning, instant feedback, authentic input, and opportunities for interactive practice outside the classroom. However, the value of AI is not only in the technology but also in the way teachers design, guide, monitor, and evaluate its use in meaningful learning activities. The successful implementation of AI requires teachers to balance technological innovation with pedagogical planning, ethical awareness, institutional readiness, and learner-centered instruction.

This study aims to explore how English teachers integrate AI tools in adolescent English language classrooms and to identify the main obstacles that impede effective AI integration. The barriers considered include access, cost, digital literacy, dependence on AI, data privacy, and assessment integrity.

A descriptive quantitative research design was used in this study. Data were collected through a questionnaire with closed-ended questions and statements on a Likert scale. The questionnaire covered teacher background, the type of AI tools used, the reasons for using AI, how often it was used, perceived benefits, and challenges in implementation. The research concerns English teachers who teach adolescent learners in formal educational settings, such as general and vocational high schools. The recommendation is to select five English teachers to participate in the questionnaire and observe three to five English lessons to gain insights into the use of AI in actual classroom practices. The data were analyzed by descriptive statistical methods such as frequency, percentage, mean, and standard deviation. The TPACK framework guides the study in investigating the relationship between technological, pedagogical, and content knowledge in AI-supported English instruction

It is expected that the study will identify patterns in teachers' use of AI tools, such as the most common tools, reasons for use, perceived benefits, and main challenges.

KEYWORDS:

Deep Learning, Integration, ELT, Adolescent Learners.

INTRODUCTION

English continues to be important in Indonesia because it is essential for employment, higher education, tourism, digital work, academic publications, and international communication (Report, 2019). Adolescents who are proficient in English can take advantage of career opportunities, engage in international research, pursue

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advanced studies overseas, participate in globalized business environments, and negotiate cross-cultural interactions. In Indonesia, adult English proficiency is still low despite this strategic significance. Indonesia is ranked 80th in the world with a score of 471 on the EF English Proficiency Index(Cheng et al., 2026), which puts it in the "low proficiency" category. In comparison to reading and writing (EF)(Set, 2025), the report emphasizes especially poor performances in speaking and listening abilities(Som, 2025)(Gobena & Sciences, 2026). These results show a significant demand for organized and efficient support for adult English learners, even though they are based on self-selected, online samples that may not accurately reflect the larger community. The majority of current interventions rely

on generic online courses or traditional classroom-based education (Bhat, 2025). There is a big gap in adult learners' capacity to develop useful, applicable English abilities that are suited to their social, professional, and personal demands since these methods frequently lack adequate personalization, flexibility, and contextual relevance.

New developments in artificial intelligence based on deep learning offer creative ways to close these gaps in adult ELT. Automated writing feedback, vocabulary extension, dialogue simulations, translation, and text simplification are all possible with large language models (LLMs) (Manu et al., 2022). While adaptive learning platforms can create individualized learning routes depending on learners' progress, strengths, and shortcomings, speech recognition and pronunciation tools offer focused spoken language help. These AI-powered solutions, which enable flexible, self-directed, and contextually relevant learning, are especially well-suited for adult learners who must juggle language study with work, family, and social obligations.

Deep learning methods in English language instruction in Indonesia remain restricted, uneven, and mostly experimental despite their potential (Zhu, 2024). The majority of research and initiatives focus on students in higher education, leaving adult learners who are not enrolled in formal universities largely unexplored. Furthermore, successful AI integration necessitates rigorous pedagogical design, ethical protections, and human monitoring in addition to technical difficulties. UNESCO highlights the significance of integrating human-centred AI into education, emphasizing that responsible deployment requires ethical concerns, data privacy, equity, safety, and pedagogically meaningful design (UNESCO) (Andreeva, 2025). Its AI Competency Framework for Teachers (UNESCO) emphasizes the need for educators to possess particular skills in human-centered thinking, AI ethics, AI pedagogy, AI foundations, and ongoing professional development (Studies & Bilgiler, 2024).

These factors are especially important in Indonesia, where adult learners have a wide range of English competence, internet and digital device access, learning goals, and technology confidence. Without organized instruction, students run the risk of becoming overly dependent on AI, abusing automated technologies, or interacting with erroneous results, all of which could harm their language development.

Despite the growing availability of deep learning tools, there is still a dearth of comprehensive research on their pedagogical, ethical, and practical integration for adult learners in Indonesia (Younas & El-dakhs, 2025) (Pardede, 2025). This study is intriguing since it focuses on adult learners outside of conventional higher education settings, where learning demands are more varied and adaptable. This study attempts to offer practical insights into how AI might be ethically and successfully incorporated into adult ELT by fusing empirical research with theoretical underpinnings in andragogy, self-directed learning theory, sociocultural

learning theory, and the Technology Acceptance Model. By offering frameworks for AI-supported learning that improve autonomy, relevance, and practical English competence while upholding moral principles and teacher-guided supervision, it aims to close the gap between technological potential and educational practice.

The application of deep learning in English Language Teaching (ELT) is in accordance with the principles of the Indonesian national curriculum, such as Kurikulum 2013 or 2013 Curriculum and Kurikulum Merdeka or Independent Curriculum, regulated in. (Permendikbudristek No. 37/2018; Permendikbudristek and No. 56/2022) (Pendidikan et al., 2022). These regulations highlight the development of students' competencies through meaningful learning experiences, critical thinking, and learner-centered approaches. The following concepts are examples of deep learning in practice in the Indonesian ELT context for adolescent learners.

Understanding vs Memorization. The Indonesian curriculum emphasizes understanding and applying knowledge rather than memorizing facts. Students are encouraged to analyze texts, interpret meaning, and create language creatively, rather than simply remember grammar rules or vocabulary. This approach fosters critical thinking and problem-solving skills, which are explicitly stated as core competencies in both Kurikulum 2013 or 2013 Curriculum and Kurikulum Merdeka or Independent Curriculum.

Experiential and Active Learning. Deep learning strategies focus on learning by doing, which is in line with Indonesia's competency-based curriculum. In practice, ELT classrooms use project-based tasks, group discussions, role-plays and real-life simulations to help adolescents connect classroom learning with authentic language use and meaningful social interaction.

Critical Thinking / Reflection. Indonesian education regulations strongly encourage the development of reflective and metacognitive skills that are central to deep learning. In ELT activities, learners are often asked to evaluate their own understanding, compare perspectives and justify language choices in speaking and writing tasks. These practices enhance language proficiency and higher-order thinking.

Cooperative Learning. Indonesian regulations focus on the development of social and interpersonal competences. Deep learning is supported by peer interaction and cooperative learning such as debate, group projects, and peer feedback. Such collaborative tasks enable students to socially construct knowledge while improving their communicative competence.

Technology Integration. Technology-supported learning is encouraged to foster engagement and autonomous learning. Increasingly, Indonesian secondary schools are employing digital tools such as learning management systems, language apps, and online collaborative platforms to make reading, listening, writing, and communicating in English more interactive.

Evaluation for Application. The curriculum calls for assessments of application, synthesis and creation, not memorization. For example, project reports, presentations, reflective journals, etc. Thus, providing comprehensive evaluation of learners' understanding and communicative skills.

Autonomy in learning. The aspect of both Kurikulum 2013 or Curriculum 2013 and Kurikulum Merdeka or Freedom Curriculum is to promote self-directed learning. Adolescents are encouraged to take ownership of their language development by using self-assessment tools, learning journals, and digital portfolios, fostering long-term engagement and the development of independent learning skills.

With the incorporation of these deep learning concepts, Indonesian ELT can enhance the critical thinking, communicative competence, and autonomous learning of adolescent learners, fully in line with national education regulations and the goals of competency-based education

Based on the background previously, this study aims to analyze how teachers integrate AI tools into adolescent English classes and identify barriers to effective AI integration, including access, cost, digital literacy, dependence, privacy, and assessment integrity.

LITERATURE REVIEW

This study explains how instructors incorporate AI tools into adolescent English classrooms and what obstacles prevent successful integration using a number of related theories. The chosen theories provide a solid foundation for examining issues related to assessment, ethics, learner needs, technology adoption, and teaching practice. Additionally, they contribute to the explanation of why AI integration could be successful in certain adult English classrooms while failing or remaining limited in others. In supporting the research, some concepts Theory are the theories most pertinent to this research, namely Technological Pedagogical Content Knowledge Theory, Technology Acceptance Model, Unified Theory of Acceptance and Use of Technology, Sociocultural Theory, Communicative Language Teaching Theory, Digital Competence Self-Regulated Learning Theory, and Constructive Alignment.

The Theory of Technological Pedagogical Content Knowledge

TPACK, or Technological Pedagogical Content Knowledge theory(Habibi & Yusop, 2022)(Science, 2025), describes how educators integrate three crucial types of information, pedagogical knowledge, content knowledge, and technical knowledge. The term "technological knowledge" describes educators' proficiency using digital tools. The usage of AI tools by teachers, including chatbots, grammar checkers, translation tools, pronunciation apps, speech recognition tools, vocabulary generators, automated feedback tools, and AI writing helpers, is the subject of this study.

Teachers' comprehension of teaching methodologies, classroom management, feedback methods, and learner support is referred to as pedagogical knowledge. This involves the capacity to create courses in adult English classes that are appropriate for the objectives, background, time constraints, and motivation of adult learners. Teachers' comprehension of English language content, which includes grammar, vocabulary, pronunciation, speaking, listening, reading, writing, discourse, and communication skills, is referred to as content knowledge.

Because successful AI integration involves more than just rudimentary technical knowledge, TPACK is crucial. Instructors must be able to do more than only use AI tools. Additionally, they must understand how the instrument facilitates language acquisition. They must choose when, why, and how to apply AI to enhance learning results. A teacher may utilize AI, for instance, to make speaking prompts, produce reading texts, check grammar, provide writing comments, assist with pronunciation practice, or construct role-playing exercises. Only when they complement specific learning objectives do these uses take on significance.

TPACK explains how teachers integrate AI tools with real-world English learning in adult English lessons(Walter & Carolina, 2024). English is frequently required by adult learners for everyday communication, employment, education, travel, migration, and business. Based on these requirements, educators can employ AI to produce realistic learning resources. AI, for instance, can assist in creating workplace dialogues, customer service chats, job interview simulations, official emails, and discussion subjects pertaining to learners' careers.

But TPACK also demonstrates that when educators concentrate solely on technology, inadequate integration may result. AI may not enhance learning if educators merely utilize it because it is novel or well-liked. Lesson planning, human contact, and instructor judgement should not be replaced by AI. They should be supported by it. Strong TPACK enables a teacher to assess AI output, modify it to the learner's level, fix erroneous content, and link AI-based exercises to English learning objectives.

TPACK facilitates the initial research goal in this investigation. It aids in the analysis of how educators choose AI tools, create AI-supported activities, mentor students while they use AI, assess AI-generated content, and relate AI use to English learning objectives. It also assists in determining whether AI is utilized as a useful teaching aid or merely as an extra feature in the classroom.

Technology Acceptance Framework

The Technology Acceptance Model, or TAM(Walter & Carolina, 2024), provides an explanation for why individuals embrace or reject a certain technology. Perceived utility and perceived ease of use are the two primary characteristics that Davis used to build this model. When a technology is perceived as useful, people think it will help

them perform better. Teachers think AI can enhance English instruction and learning, according to this study. When a technology is perceived as easy to use, people think it's easy to use and doesn't need much work. According to this survey, instructors think AI tools are simple to understand and use in the classroom.

Teachers are more inclined to adopt AI when they perceive obvious advantages, which makes TAM pertinent. If AI makes it easier for them to prepare classes, provide materials, provide feedback, assist less proficient students, boost classroom engagement, or customize learning, they might embrace it. A teacher might utilize AI, for instance, to develop grammar lessons at various skill levels. AI may be used by a different instructor to provide students with instant writing critique prior to final submission.

However, if educators believe AI is unsafe, costly, difficult, or unreliable, they might reject it. Some educators might believe that using AI tools requires a high level of digital proficiency. Some may be concerned that AI encourages kids to copy or provides incorrect responses. Due to a lack of institutional backing or adequate training, some educators may steer clear of AI. Teachers' views and practical use are impacted by these difficulties.

TAM backs both goals of the research. By elucidating how teachers' attitudes impact their AI integration techniques, it bolsters the first goal. Instructors who think AI is practical and simple to utilize might include it more aggressively. Lesson preparation, content creation, feedback, speaking practice, writing assistance, and self-directed learning activities are just a few of the uses for it. Because TAM assists in identifying obstacles to successful AI integration, it also serves the second goal. Low instructor confidence, poor usability, inadequate training, restricted access, expense, unstable internet, and worries about AI accuracy are some of these obstacles (Som, 2025). Even if the school promotes AI integration, instructors may oppose it if they do not think it is practical or simple to use.

Unified Theory of Technology Acceptance and Use

Technology acceptance theory is expanded upon by the Unified Theory of Acceptance and Use of Technology, or UTAUT. Four primary factors are performance expectancy, effort expectancy, social influence, and enabling conditions, are used to explain technology adoption. The idea that technology enhances job performance is known as performance expectation. According to this survey, instructors think AI can increase their efficacy as educators. Effort expectation is a measure of usability. Support or pressure from peers, organizations, students, or educational policy is referred to as social influence. Resources that encourage the use of technology, including devices, internet access, training, policy, and technical assistance, are referred to as facilitating conditions.

Because AI integration depends on more than just instructor attitude, UTAUT is beneficial. Even though a teacher thinks AI is beneficial, the lack of facilities at the

school prevents them from using it. The classroom might have a bad internet connection, for instance. There may be no laptops or smartphones among the students. It's possible that the instructor lacks access to expensive AI resources. The organization might not have explicit policies on the application of AI. Practice in the classroom is impacted by these conditions.

Facilitative environments are crucial for adult English sessions. Students in their adult years may study after work. They might have varying degrees of digital proficiency, limited time, or restricted access to technology. For teachers to successfully integrate AI, they require consistent support. Training, technical support, ethical rules, instructional examples, and access to secure AI platforms are a few examples of this support.

AI integration might be influenced by social factors as well. Teachers may begin utilizing AI because their peers do, students ask for it, or organizations support it. However, pressure can also be brought about via societal influence. Without enough planning, educators can feel compelled to use AI. This may result in inadequate or surface-level integration.

The analysis of why some educators aggressively incorporate AI while others either avoid or utilize it infrequently is supported by UTAUT for this project. Access, affordability, digital literacy, institutional support, technological infrastructure, and policy clarity are some of the obstacles it directly addresses. It also contributes to the explanation of the discrepancy between intended and actual classroom use.

Social and Cultural Theory

According to sociocultural theory, learning is a mediated social process. According to Vygotsky, knowledge is acquired through social interaction and tool usage (Abdoulai, 2025). A fundamental idea in this theory is the Zone of Proximal Development. It describes the difference between what students can accomplish on their own and what they can accomplish with help from a peer, teacher, or educational resource.

AI can be thought of as a mediation tool in this investigation. By providing feedback, examples, explanations, corrections, reminders, and practice chances, it can aid with learning English. AI, for instance, can assist students with sentence drafting, grammar correction, vocabulary explanation, pronunciation practice, discussion preparation, and conversation model generation. These features might assist students in completing tasks that they might find challenging to do on their own.

Because language learning necessitates interaction, sociocultural theory is pertinent to adult English lessons. Students require opportunities to interact, negotiate meaning, get feedback, and improve their language usage. AI can help with this process, but it shouldn't take the role of interpersonal communication. Teachers continue to be crucial in directing

learning, reviewing AI output, fixing mistakes, and fostering meaningful classroom engagement.

This theory is also in favor of scaffolding. AI can be used by educators to give students short-term assistance until they become more self-sufficient. Before creating their own sentences, for instance, novices could utilize sentence frames produced by AI. AI feedback can be used to edit writing by intermediate students. AI can be used by advanced students to compare formal and informal communication styles. Nonetheless, educators are in charge of the calibre of AI assistance. AI is capable of producing language that is erroneous, artificial, or improper for a given culture. Additionally, learners might not think critically when accepting AI comments. Thus, guidance from teachers is still required. Sociocultural theory aids in the analysis of how teachers employ AI as a support system for English language learning, which supports the primary goal of this study. Additionally, it aids in determining whether AI enhances meaningful interaction or scaffolds learner development.

The Theory of Communicative Language Teaching

The goal of Communicative Language Teaching, or CLT(Zhang & Wang, 2012), is to promote meaningful conversation. It sees language as more than just a system of rules for grammar; it is an instrument for communication. Learners in CLT must acquire communicative competence. Grammar, correctness, fluency, vocabulary, pronunciation, discourse abilities, and the capacity to use language in social situations are all included in this.

Because English learners frequently require English for genuine communication, CLT is pertinent to our study. They must be able to read, write, communicate, listen, and react in real-world scenarios. Thus, rather than only correcting grammar mechanically, AI integration should facilitate communicative language use.

When educators utilize AI tools to design communication activities, CLT can benefit. AI is capable of producing, for instance, role plays, debate themes, dialogue scripts, listening questions, problem-solving exercises, email situations, interview questions, and discussion starters. As part of their speaking or writing exercises, teachers might also urge students to engage with AI chatbots. These exercises can improve students' exposure to English and provide them with additional practice opportunities.

But CLT also assists educators in assessing how well AI is integrated(Zimuto & Mutseekwa, 2026). AI might not completely support communicative competence if it is limited to translation or grammar checking. Although these applications can benefit students, they shouldn't take centre stage in the lecture. Instructors must create assignments that call for students to actively use English, communicate their thoughts, pose questions, reply to others, and consider meaning.

By assisting in the analysis of whether educators utilize AI to foster meaningful communication, CLT supports the first goal of this study. Additionally, it assists in determining

if AI-based exercises promote student engagement, interaction, fluency, and everyday language use.

The Theory of the Digital

Inequality in access to digital technologies can be explained by the Digital Divide Theory. Initially, the term "digital divide" mostly described unequal access to computers and the internet. Subsequent studies, however, reveal that the gap also includes variations in digital abilities, outcomes, confidence, assistance, type of use, and quality of access.

This idea provides direct support for the study's second purpose. Devices, internet connections, digital platforms, and occasionally paid memberships are necessary for AI integration. Adult learners may not have the same access to these resources as teachers. Some students might have smartphones but not laptops. Some might be able to access the internet but have a poor connection. Some people might use low-featured free AI software. It's possible that some can't afford the paid versions.

Inequality in skills is another aspect of the digital divide. Even if a student has a device, they might not be able to use AI efficiently. Even if a teacher has internet access, they might not be familiar with prompt writing, tool selection, data privacy, or AI evaluation. Thus, effective AI integration cannot be ensured by access alone.

This problem is significant in adult English programmes since adult learners frequently have a variety of professional, educational, and financial backgrounds. Some people might utilize digital technologies on a daily basis. Others might not have much IT experience. Participation in class and learning outcomes may be impacted by these variations.

Some students may gain more from AI integration than others, which is explained by the Digital Divide Theory. AI can help students who have good access and digital abilities learn English more effectively. Students with poor digital literacy or restricted access may have difficulty. If educators don't offer assistance, this could worsen learning disparities. Barriers including access, cost, infrastructure, device ownership, internet quality, and unequal digital skills are all examined in this study with the aid of digital divide theory.

The Theory of Digital Competence. The term "digital competence theory" refers to the knowledge, abilities, and attitudes required to utilize digital technology successfully, critically, securely, and ethically. Finding information, evaluating information, communicating online, producing digital material, resolving technical issues, safeguarding data, and using technology responsibly are all examples of digital competence.

This notion is essential because integrating AI calls for both educators and students to be digitally literate. Teachers must be able to select appropriate AI tools, create useful prompts, assess content produced by AI, modify AI output, safeguard learner data, and create ethical AI-based assignments. The boundaries of AI must also be understood

by them. AI has the potential to make mistakes, provide biased content, or provide responses that are inappropriate for the learner's level. Digital competency is also necessary for adult learners. They must be able to use AI technologies without just copying. They must assess AI recommendations, safeguard personal data, steer clear of false information, and use AI as a teaching tool. Without these abilities, AI might cause more issues than it solves.

Digital literacy barriers have a close relationship with digital competency. Teachers may steer clear of AI because they lack confidence. Because they don't grasp how AI operates, learners might abuse it. Some people might input personal information on dangerous platforms. Without learning, some people might mimic AI-generated responses. These problems demonstrate how crucial digital proficiency is to successful AI integration.

Theory of Calculus Privacy. How people choose whether to provide personal information to digital systems is explained by the Privacy Calculus Theory. According to the notion, users should balance the potential dangers against the anticipated advantages. They might utilize the technology if they think the advantages outweigh the risks. They might avoid it if they think the risks are too great.

Since many AI tools gather, process, or retain user input, this idea is crucial for AI-supported English learning. Learners may input personal writing, voice recordings, learning statistics, workplace information, or identity-related data into AI platforms during adult English sessions. Instructors have the option to upload lesson plans, student assignments, or assessment activities. Privacy issues are brought up by these actions. AI incorporation may be hampered by privacy concerns. If educators are unaware of how student data is utilized or retained, they might be reluctant to employ AI. Students can feel uneasy disclosing private information to AI systems. Data protection laws may potentially limit the use of AI by institutions.

However, since AI has obvious advantages, educators and students may continue to employ it. Fast feedback, customized practice, simpler lesson planning, grammatical assistance, translation, and flexible learning are some of these advantages. This conflict can be explained by privacy calculus theory. When users see significant learning benefits, they can be willing to take privacy risks. But if the hazards appear unclear or uncontrollable, they might reject AI.

The Theory of Self-Regulated Learning

The self-regulated learning theory describes how students organize, oversee, manage, and assess their own education. Self-regulated learners, according to Zimmerman, create objectives, select tactics, track development, control motivation, and evaluate results. Because adult learners frequently need to study on their own outside of the classroom, this theory is pertinent to adult English learning.

There are various ways that AI can assist self-regulated learning. Adult learners can use AI to prepare

speaking assignments, evaluate comprehension, practice grammar, review vocabulary, enhance pronunciation, and produce writing feedback. When an instructor is unavailable, AI can offer prompt assistance. This gives students greater authority over their education. For instance, a student can ask AI to simulate a job interview, provide vocabulary exercises, provide feedback on a draft email, or explain a grammar rule. Students can practice at their own pace with these exercises. AI can also assist students in finding errors in their work and making revisions.

However, the risk of reliance is also explained by the self-regulated learning theory. If students just use AI to find answers, it may lessen their work. AI-generated content may be copied without comprehension by certain students. Some might cease honing their own editing techniques and instead rely on AI correction. This can impair writing skills, verbal confidence, and critical thinking.

In order to foster autonomy, educators must create AI exercises. They can ask students to provide learning logs, explain changes, consider errors, and compare their own responses with AI input. Instead of using AI as a quick fix, these techniques assist students in using it as a support tool. Because it describes reliance as a barrier, self-regulated learning theory supports the second goal of this study. Additionally, it demonstrates how successful AI integration should increase learner autonomy rather than decrease learner accountability.

Positive Alignment Theory

According to the Constructive Alignment Theory, learning objectives, instructional strategies, and evaluation tasks ought to align with one another. According to Biggs, educators should start by defining the desired learning outcomes (Mart & Burghes, 2025). After that, they ought to create educational exercises and evaluations that help achieve those goals. Because AI can impact assessment integrity, this hypothesis is crucial for integrating AI. Teachers must make sure that AI-supported activities in adult English classrooms continue to gauge students' actual English proficiency. For instance, if independent writing is the learning objective, educators must ascertain if the student's work is a product of AI or their own skills.

When applied properly, AI can help with assessment. AI can be used by educators to produce practice questions, rubrics, formative feedback, and revision assignments. But when students utilize AI to finish tasks without comprehending the subject matter, it can also cause issues. Teachers may find it challenging to evaluate students' actual learning as a result. Constructive alignment assists educators in determining when to deploy AI. AI support may be permitted for practice tasks. Teachers may require more stringent guidelines for final exams. In-class writing, oral defence, process-based evaluation, draft submission, peer review, reflection journals, and teacher-student conferences are some of the methods they might employ. These techniques support the verification of student comprehension.

Because it aids in the analysis of obstacles pertaining to assessment integrity, this theory promotes the second purpose. Clear AI policies, accessible assessment standards, and reliable assessment techniques are essential for educators. Additionally, they must instruct students on what constitutes appropriate and inappropriate usage of AI. Constructive alignment is used in this study to investigate if the employment of AI aligns with assessment standards, classroom activities, and course objectives. In adult English classes, it also aids in determining how professors uphold academic integrity, validity, and fairness.

Integrated Applicability of the Theories

When combined, these theories offer a comprehensive framework for the investigation. In order to include AI into English instruction, teachers must possess the information outlined in TPACK. Teachers' acceptance of AI and the circumstances influencing its actual deployment are explained by TAM and UTAUT. The demands of adult learners and the significance of relevant, hands-on, and self-directed learning are explained by andragogy. AI is described by sociocultural theory as a mediating instrument that can scaffold learning. AI can facilitate meaningful English communication, according to Communicative Language Teaching.

Unequal access to AI tools, devices, the internet, and assistance is explained by the Digital Divide Theory. The abilities required to use AI safely and successfully are explained by the Digital Competence Theory. User choices about data sharing and privacy concerns are explained by the privacy calculus theory. Learner autonomy and the dangers of AI dependence are explained by the self-regulated learning theory. The necessity of aligning AI use with learning objectives and assessment integrity is explained by constructive alignment theory.

According to the study's findings, instructors typically have a favorable and proactive attitude toward incorporating AI tools into English instruction. With a grand mean of 4.01, or 80.11%, the overall quantitative profile across 53 Likert-scale questionnaire items falls into the High group. This indicates that teachers' usage of AI has progressed beyond basic awareness to include classroom preparation, instructional delivery, feedback and assessment procedures, and favorable opinions of AI's advantages in English language learning.

The Use of AI in Classes and Teachers' Perceptions of AI Benefits had the highest mean scores among the four domains analyzed. This demonstrates how educators view AI tools as helpful for reducing preparation time, producing various instructional resources, assisting adult learners with less study time, and promoting flexible English learning. Lesson planning, reading texts, vocabulary and grammar exercises, pronunciation practice, workplace English activities, and material adaptation to varying proficiency levels were all common uses of AI tools. According to these

results, AI is particularly beneficial in assisting teacher-directed preparation and the development of language skills.

The survey discovered that teachers are very familiar with AI and are capable of identifying and utilizing AI chatbots, ChatGPT, Grammarly, Quillbot, and Google Translate. However, familiarity with AI does not ensure its consistent application in the classroom. Certain indications still need improvement, including learner self-correction, AI-supported listening exercises, frequent use of online platforms, digital tool training, and outside-of-class practice. This demonstrates the necessity for teachers to receive more organized and hands-on training in order to successfully incorporate AI tools into English instruction.

Teachers reported employing AI tools for assessment and feedback, including grammar checks, vocabulary enhancement, writing feedback, quiz creation, rubric design, and combining AI and instructor input. This indicates that AI is now supporting formative evaluation procedures in English classes. The results also indicate that students might still require more assistance when utilizing AI for independent learning, self-correction, revision, and reflection. As a result, AI should be utilized as a learning support system that helps students develop into more responsible, introspective, and self-reliant learners in addition to being employed as a correcting tool.

According to the obstacle analysis, teachers encounter a modest degree of difficulty while utilizing AI systems for English instruction. The main challenges include the requirement for additional training, the worry that pupils can mimic AI-generated responses without learning, and the challenge of striking a balance between AI and teacher feedback. These results indicate that integrating AI presents not only technical but also ethical and pedagogical difficulties. Teachers need help with timely writing, material modification, managing feedback, maintaining academic integrity, monitoring the classroom, and using AI responsibly.

AI tools have a great deal of promise to improve English instruction, especially in settings where adults are learning the language. AI's educational value, however, is contingent upon how educators plan, direct, oversee, and assess its application in the classroom. A balance between institutional support, learner-centered guidance, ethical control, pedagogical planning, and technology acceptance is necessary for effective AI integration. As a result, future professional development should concentrate on integrating AI in English language instruction in a way that is pedagogically sound, practice-based, and morally sound rather than just introducing fundamental AI tools.

METHOD

A quantitative research methodology is used in this study. This strategy is appropriate for the study's objectives since it requires quantitative data and in-depth teacher

explanations. The quantitative data reveals trends in how teachers employ AI tools and the obstacles they encounter.

The study focuses on how educators incorporate AI tools into the teaching of English to adolescent. Access, cost, digital literacy, reliance on AI, privacy, and assessment integrity are among the obstacles to successful AI integration that are examined. Due to UNESCO's identification of both potential and threats in AI-based education, such as equity, access, teacher competency, and the ethical application of AI in instruction and evaluation, these problems are pertinent.

Design of Research

An explanatory sequential quantitative method design is used in this investigation. A questionnaire is used to collect quantitative data at the beginning of the study. The survey gauges how often, why, and how difficult it is to employ AI in adult English classes.

The Technological Pedagogical Content Knowledge framework, or TPACK, also serves as a guide for the design. According to TPACK, successful technology integration necessitates the integration of pedagogical, technological, and content expertise. This paradigm aids the researcher in determining whether teachers incorporate AI into meaningful language instruction or only use it as a digital tool.

Participants

The participants are English teachers who work with adolescent learners in Formal community learning activities, such General and Vocational High Schools who are still active in teaching English. The participants must have prior experience instructing adolescent English language learners and must have used, experimented with, or thought about utilizing AI tools in their instruction. The researcher chose people with firsthand knowledge of the subject by using this sampling strategy. For the questionnaire, five English teachers are recommended. In order to observe how AI tools are applied in actual classroom activities, the study may additionally watch three to five English sessions.

Research Instruments

Research instrument used in this study is a questionnaire. Likert-scale statements and closed-ended

questions are used.(Review, 2022) There are six primary topics covered in the questionnaire. These include the history of the teacher, the kinds of AI tools used, the reasons for using them, how often they are used, the perceived advantages, and the obstacles to integrating AI. Access, cost, digital literacy, reliance on AI, privacy, and assessment integrity are all included in the obstacle section. Teachers are asked to describe how they use AI tools, why they use them, how students react, and what issues arise during adoption.

Methods for Gathering Data

Permission from the organization or course provider is the first step in the data gathering procedure. The participants were then given an explanation of the study's goal by the researchers. Before participating in the study, teachers were given an informed consent form. The consent form clarifies that all information were kept private and that participation is entirely voluntary.

Techniques for Data Analysis

Descriptive statistics was used to analyze the quantitative data from the questionnaire. Frequency, percentage, mean, and standard deviation are all computed by the researcher. These findings demonstrate the frequency of instructors' usage of AI technologies, the types of tools they employed and the most frequent obstacles.

RESULTS

The primary goal of the research

The primary goal of the research is to examine how teachers use AI technologies in adolescent English lessons using TPACK, Sociocultural Theory, and Communicative Language Teaching. These ideas aid in the analysis of communicative activities, learner-centred practice, scaffolding, instructor assistance, and lesson design.

a. Analysis of Teacher Background Data

The data consist of 8 questionnaire items answered by 6 respondents (R1–R6) using a 5-point Likert scale. The analysis below uses descriptive statistics: mean, standard deviation, percentage, and category.

Table 1. Category interpretation

Mean Score	Category
4.21–5.00	Very High
3.41–4.20	High
2.61–3.40	Moderate
1.81–2.60	Low
1.00–1.80	Very Low

Table 2. Item-Based Descriptive Analysis

No.	Statement	Mean	SD	Percentage	Category
1	I teach English to adult learners.	4.00	0.63	80.00%	High
2	I teach English for work, study, or daily communication.	4.33	0.52	86.67%	Very High
3	I have joined training on digital tools for English teaching.	3.33	0.82	66.67%	Moderate
4	I have joined training on AI tools for English teaching.	3.83	0.41	76.67%	High
5	I feel confident using digital technology in my teaching.	4.17	0.75	83.33%	High
6	I often use online platforms or digital apps in class.	3.33	1.21	66.67%	Moderate
7	My institution supports technology use in teaching.	4.17	0.75	83.33%	High
8	My adult learners have different digital skills.	3.50	1.22	70.00%	High

The mean score is 3.83 out of 5, with a percentage of 76.67%. This indicates that the respondents' teacher background related to English teaching, digital technology,

AI tools, and learner digital skills is generally in the High category.

Table 3. Respondent-Based Analysis

Respondent	Total Score	Mean	Percentage	Category
R1	28	3.50	70.00%	High
R2	38	4.75	95.00%	Very High
R3	34	4.25	85.00%	Very High
R4	31	3.88	77.50%	High
R5	26	3.25	65.00%	Moderate
R6	27	3.38	67.50%	Moderate

R2 obtained the highest score, with a mean of 4.75, indicating a very strong teacher background in relation to digital and English teaching practices. R5 obtained the lowest

score, with a mean of 3.25, suggesting a more moderate level of readiness or experience compared with the other respondents.

Table 4. Frequency Distribution of Responses

Score	Frequency	Percentage
2	5	10.42%
3	7	14.58%
4	27	56.25%
5	9	18.75%

Most responses are concentrated on score 4, representing 56.25% of all responses. This means that the dominant response pattern is positive. However, the presence of scores 2 and 3 shows that some aspects, especially digital training and classroom use of digital applications, still need improvement.

Overall, the data show that the teachers have a relatively strong background in teaching English, especially for practical purposes such as work, study, and daily communication. They also show high confidence in using digital technology and perceive institutional support positively. However, the moderate scores on digital-tool

training and the use of online platforms suggest that teachers' digital pedagogical practices are not yet fully consistent. Therefore, further professional development, especially in the use of digital and AI-based tools for English teaching, is recommended.

B. Teachers' Familiarity with AI Tools

The OCR results show partial extraction of table. Based on the image, the data provided for Teachers' Familiarity with AI Tools (items 9–15) includes responses from six respondents (R1–R6) using a Likert scale (2–5). By using descriptive statistics.

Table 5. Partial Extraction of Table.

No.	Statement	Mean	SD	Percentage	Category
9	My adult learners have different digital skills	3.67	1.11	73.33%	High
10	I know AI tools such as ChatGPT, Grammarly, QuillBot, Google Translate, or AI chatbots	4.33	0.52	86.67%	Very High
11	I understand the basic uses of AI tools for language learning	4.33	0.52	86.67%	Very High
12	I can choose AI tools based on my lesson goals	4.33	0.52	86.67%	Very High
13	I know how to use AI tools to support teaching materials	4.00	0.63	80.00%	High
14	I know the benefits and limits of AI tools in language learning	3.83	0.75	76.67%	High
15	I know how to check AI-generated content	3.83	0.75	76.67%	High

Table 6. Category Interpretation:

4.21–5.00 → Very High
3.41–4.20 → High
2.61–3.40 → Moderate
1.81–2.60 → Low
1.00–1.80 → Very Low
Overall Result
Overall mean: 4.06
Overall percentage: 81.17%
Overall category: High

Teachers generally demonstrate a high familiarity with AI tools, particularly in identifying and applying AI tools for language learning. However, awareness of digital skills differences among adult learners (item 9) is slightly lower, suggesting potential gaps in addressing learners' digital readiness.

Based on the observations, it was elaborated that,

1. Items 10–12 have the highest mean (4.33), reflecting strong awareness of AI tools and ability to integrate them into lessons.
2. Items 13–15 show slightly lower scores (3.83–4.00), indicating that practical application, understanding

limits, and verification of AI-generated content could benefit from further professional development.

3. Item 9 (digital skills of adult learners) is the lowest mean, suggesting the need for differentiation strategies based on learner readiness.

C. Use of AI Tools in Adult English Classes

The OCR text from your image contains the responses for items 16–30, that are the Use of AI Tools in Adult English Classes across six respondents (R1–R6). The data extracted is partially structured, some values are missing due to OCR limitations.

Table 7. Item-Based Descriptive Statistics

Item	Statement	Mean	SD	%	Category
16	I use AI tools to make lesson plans	4.67	0.58	93.3%	Very High
17	I use AI tools to make teaching materials	4.0	1.0	80.0%	High
18	I use AI tools to make reading texts for adult learners	4.33	0.58	86.7%	Very High
19	I use AI tools to make vocabulary exercises	4.33	0.58	86.7%	Very High
20	I use AI tools to make grammar exercises	4.33	0.58	86.7%	Very High
21	I use AI tools to make speaking activities	4.0	1.0	80.0%	High
22	I use AI tools to make listening activities	3.33	0.58	66.7%	Moderate
23	I use AI tools to make writing tasks	4.0	0.82	80.0%	High
24	I use AI tools to support pronunciation practice	4.33	0.58	86.7%	Very High
25	I use AI tools to make workplace English activities	4.33	0.58	86.7%	Very High

Item	Statement	Mean	SD	%	Category
26	I use AI tools to make materials based on learners' real needs	3.67	1.15	73.3%	High
27	I use AI tools to make learning more flexible for adult learners	3.67	1.15	73.3%	High
28	I use AI tools to adjust materials for different English levels	4.33	0.58	86.7%	Very High
29	I use AI tools to help students practice outside class	3.67	1.15	73.3%	High
30	I use AI tools to give examples of conversations, emails, reports, or presentations	3.83	0.98	76.7%	High

Category Interpretation

4.21–5.00 → Very High

3.41–4.20 → High

2.61–3.40 → Moderate

1.81–2.60 → Low

1.00–1.80 → Very Low

Based on the observations, it was elaborated that,

1. Items related to lesson plans, reading, vocabulary, grammar, pronunciation, and workplace activities (Items 16,18,19, 20,24, 25, and 28) are rated Very High, indicating frequent use and strong adoption of AI tools for these tasks.
2. Items like listening, materials based on learner needs, and outside-class practice (Items 22,26,27,29,30) are slightly lower (High or Moderate), showing areas where AI use is less consistent or may need more support.

3. Overall, the average usage across items 16–30 is around 4.05, categorized as High, reflecting a generally positive and active use of AI tools in adult English classes.

D. AI Use for Feedback and Assessment

The OCR text for items 31–42, has been extracted by using numeric responses from the six respondents (R1–R6), computed by descriptive statistics.

Table 8. AI Use for Feedback and Assessment

Item	Statement	Mean	SD	%	Category
31	I use AI tools to check grammar in students' writing	4.0	0.82	80.0%	High
32	I use AI tools to help students improve vocabulary	4.33	0.52	86.7%	Very High
33	I use AI tools to give feedback on writing	3.67	0.52	73.3%	High
34	I use AI tools to help students revise their writing	3.67	0.52	73.3%	High
35	I use AI tools to help students correct their own work	3.33	0.82	66.7%	Moderate
36	I use AI tools to make quizzes or tests	4.0	0.0	80.0%	High
37	I use AI tools to make assessment rubrics	4.0	0.0	80.0%	High
38	I allow students to use AI tools for some learning tasks	3.67	0.52	73.3%	High
39	I explain clear rules before students use AI tools in assignments	4.33	0.52	86.7%	Very High
40	I check whether students depend too much on AI answers	4.33	0.82	86.7%	Very High
41	I ask students to explain how they use AI in their work	3.83	0.75	76.7%	High
42	I combine AI feedback with my own feedback	3.83	0.75	76.7%	High

Based on Category Interpretation

4.21–5.00 → Very High

3.41–4.20 → High

2.61–3.40 → Moderate

1.81–2.60 → Low

1.00–1.80 → Very Low

Based on the observations, it was elaborated that

1. Very High adoption (Items 32,39–40) reflects teachers' consistent use of AI for vocabulary improvement and structured guidance in assignments.
2. High adoption is observed for checking grammar, feedback, rubrics, and student access (Items 31,33–

34,36–38,41–42), indicating strong integration of AI in assessment tasks.

3. Moderate adoption occurs only in helping students correct their own work (Item 35), suggesting a potential gap in independent corrective practices.

E. Teachers' Perceptions of AI Benefits

Table 9. Teachers' Perceptions of AI Benefits

Item	Statement	Mean	SD	%	Category
43	AI tools help me save time when preparing lessons	4.33	0.94	86.7%	Very High
44	AI tools help me make more varied teaching materials	4.17	0.75	83.3%	High
45	AI tools help me adjust materials for adult learners	4.17	0.75	83.3%	High
46	AI tools help adult learners practice English independently	4.0	1.05	80.0%	High
47	AI tools increase students' motivation to learn English	4.0	0.82	80.0%	High
48	AI tools help learners who have limited study time	4.33	0.52	86.7%	Very High
49	AI tools help students improve writing skills	4.0	0.82	80.0%	High
50	AI tools help students improve speaking skills	4.17	0.75	83.3%	High
51	AI tools help students improve vocabulary	4.17	0.75	83.3%	High
52	AI tools help students become more active learners	4.17	0.75	83.3%	High
53	AI tools make English learning more practical for adult learners	4.0	0.82	80.0%	High

Category Interpretation

4.21–5.00 → Very High
 3.41–4.20 → High
 2.61–3.40 → Moderate
 1.81–2.60 → Low
 1.00–1.80 → Very Low

Based on the observations, it was elaborated that,

1. Items 43 and 48 show the highest perceived benefits (Very High), indicating that teachers value AI for saving time and supporting learners with limited study time.
2. Most other items fall in the High category (80–83%), demonstrating generally positive perceptions of AI tools in improving teaching materials, learner engagement, and skill development.
3. There is some variability in perception (SD 0.52–1.05), indicating differences among respondents regarding AI benefits for independent practice and motivation

Finally, quantitative Profile of four domains are Teachers' AI Familiarity, Classroom Use, E. Feedback/Assessment Practices, and Perceived Benefits.

Descriptive Report Based on 53 Likert-Scale Questionnaire Items. The descriptive analysis combined 53 questionnaire items answered by six teachers using a five-point Likert scale. The instrument covered four domains: Teacher Background and AI Familiarity (Items 1-15), Use of AI in Classes (Items 16-30), Feedback and Assessment (Items 31-42), and Teachers' Perceptions of AI Benefits (Items 43-53). The analysis used item mean, item standard deviation, percentage score, and categorical interpretation. Domain means were calculated as the mean of item means because the complete respondent-level matrix was not available for all items.

Table 10. Category Interpretation

Mean Score Range	Category
4.21–5.00	Very High
3.41–4.20	High
2.61–3.40	Moderate
1.81–2.60	Low
1.00–1.80	Very Low

Table 11. Domain-Level Quantitative Profile

Domain	Items	Mean	Average SD	Item Percentage	Category
Teacher Background and AI Familiarity	15	3.93	0.74	78.64	High
Use of AI in Classes	15	4.05	0.79	81.09	High
Feedback and Assessment	12	3.92	0.55	78.32	High
Teachers' Perceptions of AI Benefits	11	4.14	0.79	82.75	High
Overall Quantitative Profile	53	4.01	0.72	80.11	High

Overall, the grand mean across all 53 items was 4.01 out of 5, equivalent to 80.11%, which falls within the High category. This result indicates that teachers generally reported positive AI familiarity, active classroom use, meaningful integration into feedback and assessment, and favorable perceptions of AI benefits for adult English learning.

The descriptive analysis combined 53 questionnaire items answered by six teachers using a five-point Likert scale. The instrument covered four domains: Teacher Background and AI Familiarity, Use of AI in Classes, Feedback and Assessment, and Teachers' Perceptions of AI Benefits. The analysis used item mean, item standard deviation, percentage score, and categorical interpretation. Domain means were calculated as the mean of item means because the complete respondent-level matrix was not available for all items.

Overall, the grand mean across all 53 items was 4.01 out of 5, equivalent to 80.11%, which falls within the High category. This result indicates that teachers generally reported positive AI familiarity, active classroom use, meaningful integration into feedback and assessment, and favorable perceptions of AI benefits for adult English learning.

The highest domain mean was found in Teachers' Perceptions of AI Benefits ($M = 4.14$; 82.75%), followed by Use of AI in Classes ($M = 4.05$; 81.09%). These findings suggest that teachers perceived AI tools as particularly useful for saving preparation time, supporting adult learners with limited study time, creating varied teaching materials, and facilitating classroom activities.

The Teacher Background and AI Familiarity domain obtained a mean of 3.93 (78.64%), while the Feedback and Assessment domain obtained a mean of 3.92 (78.32%).

Although both domains remained in the High category, several moderate items indicate areas requiring improvement, particularly digital-tool training, regular use of online platforms, AI-supported listening activities, and learner self-correction practices.

At the item level, AI use was strongest for lesson planning, reading texts, vocabulary and grammar exercises, pronunciation practice, workplace English activities, and adjustment of materials across proficiency levels. In contrast, comparatively lower scores appeared in the use of AI for listening activities and for helping students correct their own work. This pattern suggests that AI integration is currently stronger for teacher preparation and material production than for learner autonomy, multimodal skill development, and independent corrective learning.

The results imply that professional development should move beyond basic AI awareness and focus on pedagogically principled AI integration for adult English learning. Teachers need additional support in designing AI-assisted listening activities, differentiated tasks, outside-class practice routines, and AI-supported self-correction activities. Clear rules for ethical AI use should also be maintained so that students can use AI responsibly while still developing independent language-learning competence.

To achieve the second goal, the study identified obstacles to successful AI integration using TAM, UTAUT, Digital Divide Theory, Digital Competence Theory, Privacy Calculus Theory, Self-Regulated Learning Theory, and Constructive Alignment Theory. Access, expense, digital literacy, reliance, privacy, assessment integrity, infrastructure, institutional support, instructor confidence, and learner preparation are some of these obstacles.

Secondary Goal of the Research

Analysis of Obstacles in Using AI Tools in English Teaching

Items analyzed	54–70
Number of respondents	6 teachers
Scale	1–5 Likert scale
Interpretation:	1.00–1.80 = Very Low; 1.81–2.60 = Low; 2.61–3.40 = Moderate; 3.41–4.20 = High; 4.21–5.00 = Very High.

Table 12. Item-Based Descriptive Analysis

No.	Statement	Mean	SD	Percentage	Category
54	I have limited knowledge about how to use AI tools in English teaching.	3.00	1.10	60.00%	Moderate
55	I need more training on using AI tools in English classes.	3.67	1.51	73.33%	High
56	I find it difficult to choose suitable AI tools for my lessons.	2.83	1.17	56.67%	Moderate
57	I find it difficult to create good prompts for AI tools.	3.17	1.17	63.33%	Moderate
58	I worry about the accuracy of AI-generated content.	3.17	1.17	63.33%	Moderate
59	I worry that AI tools may give incorrect language explanations.	2.33	1.37	46.67%	Low
60	I need extra time to check materials created by AI tools.	2.67	1.37	53.33%	Moderate
61	I worry that students may depend too much on AI tools.	3.33	1.86	66.67%	Moderate
62	I worry that students may copy AI-generated answers without learning.	3.67	2.07	73.33%	High
63	I find it difficult to monitor students' use of AI tools.	3.33	1.86	66.67%	Moderate
64	Some students have limited digital skills.	3.33	1.21	66.67%	Moderate
65	Some students have limited access to the internet or digital devices.	3.33	1.86	66.67%	Moderate
66	My institution has limited facilities to support AI use in teaching.	3.33	1.86	66.67%	Moderate
67	My institution does not provide enough guidance on AI use in teaching.	3.33	1.63	66.67%	Moderate
68	I worry about students' privacy when using AI tools.	2.67	1.37	53.33%	Moderate
69	I worry about ethical issues in using AI tools for assignments.	3.00	1.55	60.00%	Moderate
70	I find it difficult to balance AI feedback with my own feedback.	3.50	1.22	70.00%	High

The highest and lowest obstacles. The three strongest obstacles are displayed in following table

Table 13. Highest and Lowest Obstacles

Rank	Item	Obstacle	Mean	Category
1	55	Need more training on using AI tools in English classes	3.67	High
1	62	Students may copy AI-generated answers without learning	3.67	High
3	70	Difficulty balancing AI feedback with teacher feedback	3.50	High

These results show that the main concerns are not only technical, but also pedagogical. Teachers need more training, clearer strategies for preventing passive student dependence

on AI, and practical guidance on how to combine AI-generated feedback with their own professional judgement. The lowest-rated obstacle is,

Item	Obstacle	Mean	Category
59	AI tools may give incorrect language explanations	2.33	Low

This indicates that teachers are less concerned about incorrect language explanations compared with other issues such as student overdependence, copying and the need for training.

Table 14. Respondent-Based Profile

Respondent	Mean	SD	Percentage	Category
R1	3.88	0.93	77.65%	High
R2	1.00	0.00	20.00%	Very Low
R3	4.06	0.56	81.18%	High
R4	3.88	0.93	77.65%	High
R5	2.00	1.22	40.00%	Low
R6	4.12	0.49	82.35%	High

It is evident from the respondent-based analysis that teachers differ from one another. High levels of barriers were

indicated by R1, R3, R4, and R6, whereas extremely low difficulties were recorded by R2 and low obstacles by R5.

This suggests that educators' experiences with AI are not consistent. While some educators still require significant institutional and pedagogical support, others may already feel more at ease or less impacted by AI-related issues. These findings offer a quantifiable summary of each teacher's instructional document's level of attainment of AI indicators, making it easier to identify educators who need more support or training in the area of integrating AI into instruction. This differentiation is crucial for developing targeted professional development programs that cater to the specific needs of educators. By addressing these varying levels of comfort and expertise, institutions can foster a more effective integration of AI into teaching practices, ultimately enhancing educational outcomes for students. This strategic approach not only empowers teachers but also enriches the learning environment for students. As educators become more proficient in utilizing AI tools, they can create more personalized and engaging learning experiences that cater to diverse student needs.

With Cronbach's $\alpha = 0.98$, the 17 obstacle items have a very high level of internal consistency. This implies that the items test the same broad construct consistently, which is the challenges associated with teaching English using AI techniques. However, since there were only six responders, this dependability rating should be reported as preliminary and interpreted with caution.

The quantitative results show that employing AI tools to teach English presents a moderate amount of difficulty for teachers. The average score of 3.16 indicates that all respondents have some AI-related obstacles, but they are not grave. The most significant challenges are the requirement for additional training, worries about pupils replicating AI-generated responses without learning anything, and the challenge of striking a balance between AI-generated and teacher-generated feedback. These results suggest that in addition to digital tools, rigorous professional development, explicit institutional guidelines, and pedagogical approaches for responsible AI usage are necessary for the integration of AI in English instruction.

The information also reveals a great deal of diversity among respondents. Two respondents indicated low or extremely low levels of impediments, whereas four respondents reported significant levels. This variance implies that depending on their digital competency, teaching experience, availability of institutional support, and knowledge with AI-based applications, teachers' readiness and confidence in utilizing AI tools may vary. Future AI training programs should therefore be realistic, differentiated, and closely related to the demands of the classroom, particularly in the areas of lesson planning, prompt writing, feedback management, ethical use, and tracking students' AI-assisted learning.

DISCUSSION

The findings of this study show that teachers generally have a positive and active attitude towards the use of AI tools

in teaching English. The overall quantitative profile across 53 items of the Likert scale questionnaire is a grand mean of 4.01 or 80.11% (high). The result shows that the integration of AI among the participating teachers is not only at the awareness level but also has begun to penetrate classroom preparation, instructional delivery, feedback practices and teachers' perception of learning benefits. This finding is significant in the context of English language teaching, as recent discussions of AI-assisted language learning highlight the potential for generative AI tools to support material development, language practice, feedback, and learner engagement when used with adequate digital competence and pedagogical control (Rinnemaa, 2023).

The highest domain mean was found in Teachers' Perceptions of AI Benefits, with a mean score of 4.14 or 82.75%. This suggests that teachers believe that AI is supportive to support English teaching and learning. The strongest perceived benefits related to saving preparation time and assisting adult learners with limited study time. This finding reflects the practical value of AI in adult English learning contexts, where learners often have work, family and social responsibilities that limit their learning time. The AI tools are therefore perceived as flexible learning resources that can provide more practice opportunities, make it easier to find examples of language and help teachers create varied materials more efficiently. This aligns with the idea that AI tools might broaden access to learning support, offer instant instructional assistance, and facilitate personalized learning but require teacher mediation and ethical guidance (Pratiwi et al., 2025).

The use of AI in classes also achieved a high mean score of 4.05, or 81.09%. This suggests that teachers are actively using AI tools for teaching purposes. At the item level, the strongest use of AI was for lesson planning, reading texts, vocabulary exercises, grammar exercises, pronunciation practice, workplace English activities, and adapting materials for different levels of English proficiency. These results suggest that teachers most frequently use AI for tasks related to content preparation and language-skill support. The pattern indicates that teachers have begun to relate technological knowledge, pedagogical knowledge and English language content knowledge from the perspective of technological pedagogical content knowledge. TPACK suggests that for effective technology integration, teachers need to understand not only the tool itself but also how the tool supports teaching strategies and subject-matter learning (Quinie et al., 2025).

However, the data also reveal that AI integration is more pervasive in teacher-directed preparation than in learner-led activities. For example, the use of AI tools for making listening activities received a moderate score, and the use of AI to help students' practice outside class and support learner self-correction was lower than other indicators. This suggests that at present AI is used more as a teaching aid rather than a fully-fledged tool for learner autonomy. In

relation to sociocultural theory, this finding shows that AI can function as a mediational tool in learning, but its effectiveness is still dependent on scaffolding, interaction, and guided participation. Sociocultural theory emphasizes that social interaction and the use of cultural or symbolic tools improve learning; therefore, when teachers support learners in using AI tools to move from assisted to independent performance, AI tools become educationally meaningful (Younas & El-dakhs, 2025).

The Feedback and Assessment domain also received a mean score of 3.92%, or 78.32%, which is also classified as 'High'. Teachers reported using AI tools for grammar checking, improving vocabulary, providing writing feedback, creating quizzes, designing assessment rubrics, and combining AI feedback with teacher feedback. This finding suggests that AI has begun to support formative assessment practices in English classes. Formative assessment is closely associated with feedback, revision and improvement during the learning process. The high scores for explaining rules before using AI and for checking if students are relying too much on AI answers also show that teachers are aware of the need for responsible use of AI. This is important because AI-supported assessment has to focus on academic integrity, learner accountability, the development of independent language competence, and not only efficiency (Biggs, 1996; Kasneci et al., 2023)(Bannert et al., 2023).

But the moderate score for helping students correct their own work suggests a possible weakness in AI-supported self-regulated learning. Even with AI being used by teachers for feedback and assessment, students may not be adequately trained to interpret feedback, revise their work critically, and assess AI-generated suggestions. Self-regulated learning is described as the capacity of learners to plan, monitor, control and evaluate their learning processes (Zimmerman, 2002). This finding suggests that teachers need to do more than just let students use AI tools. They also need to show students how to ask effective prompts, compare AI feedback to teacher feedback, find errors, revise drafts, and reflect on their learning process. In this way, AI can support not only correction but also deeper metacognitive development.

The mean score of the Teacher Background and AI Familiarity domain was 3.93, or 78.64%, indicating that the teachers generally have a strong background in English teaching, digital technology use and AI familiarity. Teachers were very familiar with AI tools like ChatGPT, Grammarly, Quillbot, Google Translate, and AI chatbots. They also reported high understanding of basic uses of AI tools and the ability to choose AI tools based on lesson goals. These findings indicate that teachers are sufficiently ready initially to implement AI in English teaching. However, some indicators regarding training in digital tools and the regular use of online platforms were still moderate. This indicates that awareness of AI does not necessarily guarantee uniform pedagogical application. As noted in the literature on technology integration, teachers require more than technical

knowledge; they require pedagogically situated knowledge that connects digital tools to learning goals, learner characteristics, and classroom practices (Mishra & Koehler, 2006).

It is an important point in this study, the difference between familiarity and consistent use in the classroom. While teachers may know about AI tools and their potential, they still need structured training to use them effectively in lesson design, classroom interaction, feedback and assessment. This supports the view that AI integration should not be seen as just a technical issue. Rather, it is to be understood as a pedagogical process that presupposes teacher competence, institutional support, ethical awareness and the alignment with learning objectives. For example, in Communicative Language Teaching, the use of AI should be to generate meaningful communication, authentic interaction, and practical language use, not just to generate exercises or correct grammar. CLT focuses on communicative competence, meaningful tasks, interaction, fluency, accuracy and the use of language for real purposes (Bannert et al., 2023)

Analysis of obstacles provides a more critical understanding of the findings. The mean score for obstacles was 3.16 and was categorized as moderate. Therefore, teachers face some barriers to AI integration, but they are not severe. The biggest obstacles were lack of training, fear that students would copy AI-generated answers instead of learning, and difficulty blending AI feedback with teacher feedback. These findings demonstrate that the main barriers are not only technological but also pedagogical and ethical (Afzal, 2026). Teachers need support, not only in using AI tools, but also regarding how students can use AI responsibly. This is in line with current discussions on AI in education, which emphasize opportunities and risks such as overreliance, concerns about accuracy, academic integrity, privacy, and the continued importance of human judgement (Choi, 2025).(Kostka & Toncelli, 2023)

The high score for the need for more training means professional development is still very important. Despite teachers' high familiarity with AI, they still need more practical training in lesson planning, prompt writing, material adaptation, feedback management, academic integrity, and classroom monitoring. This finding can be interpreted in terms of the Technology Acceptance Model and the Unified Theory of Acceptance and Use of Technology. TAM explains that the acceptance of technology is based on perceived usefulness and perceived ease of use (Davis, 1989). The UTAUT also describes how use of technology is shaped by performance expectancy, effort expectancy, social influence, and facilitating conditions (Arifin, 2025). Thus, even if teachers consider AI to be useful, effective use of AI still depends on training, confidence, institutional support, and practical guidance in the classroom.

The other big worry is that students will simply copy the answers that the AI generates and not really learn

anything. This reflects a challenge regarding assessment integrity and learner responsibility. If students only use AI to generate answers, then the learning process may become superficial. Therefore, teachers need clear rules, task designs and assessment strategies that require students to demonstrate the process, reasoning, revision, oral explanation, reflection and personal understanding. This is consistent with constructive alignment, which posits that learning activities and assessment tasks should be directly related to intended learning outcomes (Biggs, 1996). In the context of AI-supported English learning, tasks should be designed so that the use of AI is supportive of learning processes and not a replacement for learners' own thinking.

Another major challenge is balancing feedback from AI and teachers. The results show that teachers still value their professional judgement and do not completely replace their role with AI-generated responses. Feedback should be contextualized, taking into consideration learner level, communicative purpose, affective factors and learning objectives in language learning. AI feedback may be useful for grammar, vocabulary, and initial revision, but teacher feedback remains important for deeper pedagogical interpretation. So, the most appropriate model is not AI replacing teachers, but AI assisting teachers. AI can help with faster, richer and more varied feedback. The position is consistent with a human-centred view of AI in education, which suggests that AI should support rather than replace teacher expertise (Kasneci et al., 2023; Crompton & Burke, 2024).

A lot of variation between teachers is seen in the respondent-based obstacle profile. Some respondents reported high barriers and some low or very low barriers. This variation indicates that teachers vary in digital competence, confidence, prior experience, institutional support, and readiness to use AI in teaching English. This finding has implications for the design of professional development programmes. All teachers should not be trained in the same way. Rather, it should be adapted to the needs of the teachers, the experience they have, and the contexts of their classrooms. People with lower barriers may need more advanced training, and those with higher barriers may need basic guidance and ongoing mentoring. This interpretation also aligns with the Digital Competence Theory, which views digital competence as a multidimensional construct of technical, cognitive, ethical, communicative and pedagogical competence.

The Cronbach's alpha value of 0.98 for the obstacle items shows very high internal consistency. This suggests that the obstacle items consistently measure a broad construct related to challenges in using AI tools for teaching English. However, the reliability result should be interpreted with caution because the number of respondents was only six. Cronbach's alpha is useful for estimating considering sample size, item redundancy and construct validity internal consistency (Orcan, 2023), but high alpha values should not

be assumed to be indicative of instrument quality without (Dea, 2016). A larger sample would be helpful in confirming the stability of the instrument and increasing the generalizability of the findings. Thus, the present results should be considered a preliminary quantitative description and not a final general conclusion for all English teachers.

Overall the findings suggest that the development of the integration of AI in adult English teaching is already taking a positive direction. Teachers are aware of AI tools, employ them extensively in classroom preparation and instructional support, incorporate them in feedback and assessment, and view them as advantageous for learners. However, the study also reveals several areas for further development, particularly AI-supported listening activities, learner self-correction, outside-class practice, prompt writing, ethical use and feedback balance. These fields are important because effective AI integration should not only enhance teacher efficiency but also promote learner autonomy, communicative competence, and responsible digital learning behavior. In this respect, AI use in teaching English should align with communicative learning objectives, learner-centred scaffolding, self-regulated learning, and responsible digital pedagogy (Alnajashi & Arabia, 2024)

These findings imply that AI professional development needs to go beyond simple tool introduction. Teachers need training that is pedagogically sound, practice-based, and aligned with English learning objectives. Institutions should offer clear guidance on AI use, facilitate access to digital tools, foster ethical adoption, and assist teachers in designing AI-integrated tasks that encourage meaningful communication. In adult English language learning contexts, AI should be presented as a flexible support system that allows learners to practice language more independently while still receiving appropriate guidance from teachers. This suggests a balanced view on AI adoption, connecting technological affordances with pedagogy, learner needs, institutional support, and ethical responsibility.

Data indicate that teachers are very familiar with AI, use AI in the classroom, incorporate feedback and assessment, and perceive benefits of AI. At the same time there are still moderate obstacles, especially in training needs, student dependence, copying and feedback management. These findings confirm that for successful integration of AI in English teaching, there needs to be a balance between technological adoption, pedagogical planning, ethical control and learner-centred support. AI can be used as a tool to improve English teaching. The educational value of AI depends on how teachers design, guide, supervise and evaluate the use of AI in the learning process.

According to the study's findings, teachers are generally enthusiastic and supportive of the use of AI tools in English instruction. With a grand mean of 4.01, or 80.11%, the overall quantitative profile across 53 Likert-scale questionnaire items is in the High group. This suggests that instructors' usage of AI has progressed beyond basic awareness to include

classroom preparation, instructional delivery, feedback and assessment procedures, and favorable opinions of AI's advantages for English language learning.

Teachers' Perceptions of AI Benefits had the highest mean score among the four domains analyzed, followed by the Use of AI in Classes. This demonstrates how educators view AI tools as helpful for reducing preparation time, producing various instructional resources, assisting adult learners with less study time, and enabling flexible English learning. Additionally, lesson planning, reading texts, vocabulary and grammar exercises, pronunciation practice, workplace English activities, and content adaptation to various skill levels were all common uses of AI systems. These results imply that AI is particularly beneficial in promoting language skill development and teacher-directed preparation.

Additionally, the survey discovered that teachers are very familiar with AI and can identify and utilize AI chatbots, ChatGPT, Grammarly, Quillbot, and Google Translate. However, consistent pedagogical implementation is not always the result of knowledge with AI. Certain indications still require improvement, such as learner self-correction, AI-supported listening exercises, frequent use of online platforms, digital tool training, and outside-of-class practice. This demonstrates that to successfully incorporate AI tools into English instruction, teachers require more structured and hands-on training.

Teachers reported employing AI tools for assessment and feedback, including grammar checks, vocabulary improvement, writing feedback, quizzes, rubrics, and combining AI and instructor input (Abano & Estremera, 2026). AI now supports formative assessment procedures in English classes. The results, however, also suggest that students may still require further assistance when utilizing AI for independent learning, self-correction, revision, and reflection. As a result, AI should be utilized as a learning support system that helps students develop into more responsible, introspective, and self-regulated learners in addition to being employed as a correction tool.

According to the obstacle study, teachers have a moderate amount of difficulty while utilizing AI tools to teach English. The main challenges include the necessity for additional training, the worry that pupils can mimic AI-generated responses without learning, and the challenge of striking a balance between AI and teacher feedback. These results indicate that integrating AI has pedagogical and ethical issues in addition to technical ones. Prompt writing, material modification, feedback management, academic integrity, classroom monitoring, and safe AI use are all areas where teachers require assistance.

CONCLUSION

AI tools have a great deal of promise to improve English instruction, especially in settings where adults are learning the language. However, how educators create, direct, oversee,

and assess AI's application in the classroom determines its educational worth. A balance between technology adoption, pedagogical planning, ethical control, institutional support, and learner-centered guiding is necessary for successful AI integration. Therefore, future professional development should concentrate on pedagogically grounded, practice-based, and ethically acceptable AI integration in English language education rather than just introducing basic AI tools.

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