

ENGLISH MAJOR GRADUATES' CAREERS AND ARTIFICIAL INTELLIGENCE: WORKPLACE EXPERIENCES AND IMPLICATIONS FOR EMPLOYABILITY PREPARATION

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Abstract

This study investigates English major graduates' career sectors, their use of Artificial Intelligence (AI) in workplace tasks, and the human skills they perceive as non-substitutable by AI. Using a mixed-methods design, data were collected through an online questionnaire from 109 graduates of a Communicative English for Business program in Thailand and supplemented by semi-structured interviews with 15 graduates from diverse employment sectors. Descriptive statistics were used to analyze survey data, while interview transcripts were summarized thematically to deepen interpretation. The findings show that most graduates were employed in service-oriented, modern trade, and health-related industries where communication and customer interaction were central. AI was widely used to support tasks including documentation, customer service, marketing, recruitment, education, administrative operations, and health-service coordination. However, graduates consistently identified core human capabilities—particularly emotion and empathy, complex problem-solving, interpersonal communication, creativity, and professional responsibility—as functions that AI could not replace. These results indicate that AI operates primarily as a supportive tool that enhances efficiency rather than replacing human roles in English-major careers. The study highlights the importance of integrating AI-blended learning approaches that combine language development with authentic and AI-supported workplace tasks while intentionally cultivating human-centered competencies to prepare graduates for sustainable employability in AI-augmented professional environments.

Keywords: English Major Graduates, Artificial Intelligence, Employability, Career and Artificial Intelligence

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Introduction

English language proficiency remains a requisite of employability for graduates in globalizing labor markets, particularly for English-major programs. Employers and industry stakeholders consistently emphasize the importance of core linguistic skills—listening, speaking, reading, and writing—as foundational competencies necessary for workplace communication and performance (Sararit et al., 2025). In a recent study of stakeholders representing modern trade, services, and health & wellness sectors, linguistic proficiency across these four skills was critical for graduates' employability, alongside broader workplace competencies such as teamwork, creativity, resilience, critical thinking, and leadership. Employers also highlighted the need for English majors to demonstrate cultural knowledge, information technology literacy, and contextual communication skills that support real-world performance in professional settings.

The development of English language skills is not merely about form-focused proficiency, but also about strategic communication in diverse contexts. Contemporary research on graduate employability underscores that language competence must be complemented by transferable skills, such as problem-solving, adaptability, and ethical communication, to meet workplace expectations (Jackson, 2016). This integrated perspective aligns with the broader employability framework, which conceptualizes employability as a combination of skills, understandings, and

personal attributes that enable graduates to gain, sustain, and advance in careers. Such an approach shifts attention from isolated linguistic ability to communicative competence embedded in authentic professional tasks.

Within the English-major context, these foundational skills prepare graduates for roles in services, modern trade, health and wellness, education, and other corporate settings where effective communication is essential. However, the rapid integration of artificial intelligence (AI) in workplaces presents both opportunities and challenges for how these competencies are enacted. Rather than replacing human capacity, AI is increasingly reshaping job tasks, automating routine processes, and augmenting complex decision-making. Recent global workforce analyses indicate that future work is characterized by task transformation, in which machines support certain functions while human judgment, communication, and interpersonal skills remain critical (World Economic Forum, 2023).

In higher education, these labor market shifts require educators and curriculum designers to rethink how language programs prepare students. While AI can be used as a tool for enhancing language learning through automated feedback, language support systems, and adaptive instruction, there is a risk that technology may be integrated without sufficient pedagogical grounding or consideration for how it supports professional readiness. A systematic review of research on AI applications in higher education found that much of the current literature emphasizes

technical functionality and learning efficiency, while comparatively fewer studies focus on teachers' pedagogical roles, instructional design, and alignment with real workplace demands (Zawacki-Richter et al., 2019). These findings suggest a need for education research that foregrounds how AI can be pedagogically integrated to prepare students not just to use technology, but to perform communicative and professional tasks in evolving labor markets.

Moreover, international policy guidance on AI in education recommends that AI integration remain human-centered, ethically sound, and aligned with learning outcomes that prepare students for complex sociocultural and professional environments (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2023). This guidance resonates with employability perspectives highlighted by industry and labor-market analyses, which emphasize that language competence must be contextualized within broader human skills that AI cannot replicate, such as empathy, creativity, intercultural communication, and professional judgment—competencies that remain central to effective communication and work performance (World Economic Forum, 2023).

One promising instructional model that responds to the dual imperatives of language competence and AI integration is AI-blended learning, which can be understood as the purposeful combination of face-to-face instruction with digital and AI-enhanced learning activities to support authentic tasks

and collaborative engagement. Contemporary blended learning research defines this approach as the strategic integration of online and in-person learning to promote flexibility, active participation, and meaningful learning experiences (Hrastinski, 2019). When enhanced through AI tools, blended learning environments can simulate workplace scenarios, provide personalized and timely feedback, and scaffold students' development of both language proficiency and transferable employability skills, such as communication, problem-solving, and self-directed learning (Zawacki-Richter et al., 2019; UNESCO, 2023). Despite its potential, empirical research examining how AI-blended learning contributes specifically to graduates' employability—particularly from the perspective of those who have already entered the workforce—remains limited, especially in non-Western and ASEAN contexts. This gap raises important questions about how English major graduates experience the use of AI in their careers, including the types of workplace tasks supported by AI and the human skills that remain essential in AI-augmented work environments.

To address this gap, the present study investigates English major graduates' career sectors, examines the workplace tasks that are supported or enhanced by artificial intelligence, and explores graduates' perceptions of human skills and job functions that remain non-substitutable by AI. By focusing on graduates' real workplace experiences, the study aims to provide empirical evidence on how English majors

engage with AI in their professional contexts and how this relates to their employability.

Objectives

The objectives of this study are:

1. To examine the employment sectors in which English major graduates currently work,
2. To investigate the workplace tasks that are supported or enhanced by artificial intelligence in graduates' professional contexts, and
3. To explore the human skills and job functions that English major graduates perceive as non-substitutable by artificial intelligence.

Based on the aforementioned objectives, the following research questions were formulated to guide the study.

Research Question 1:

What employment sectors do English major graduates currently work in?

Research Question 2:

Which workplace tasks are enhanced or supported by artificial intelligence in graduates' professional contexts?

Research Question 3:

Which human skills and job functions are perceived as non-substitutable by artificial intelligence?

Literature Review

English Language Skills and Graduate Employability

English language proficiency has long been recognized as a key determinant of

graduate employability, particularly in contexts where English functions as a lingua franca in professional communication. Contemporary employability research emphasizes that language skills should not be viewed as isolated linguistic competencies, but rather as integral components of broader workplace performance, including interpersonal communication, problem-solving, and professional interaction (Jackson, 2016). For English major graduates, the mastery of listening, speaking, reading, and writing skills promotes their ability to function effectively in service-oriented and communication-intensive occupations.

Recent studies in higher education further suggest that employers increasingly value contextualized language use, where graduates are expected to apply English flexibly across diverse professional situations rather than merely demonstrate grammatical accuracy (Clarke, 2018). This shift reflects a growing emphasis on communicative competence, professional discourse, and adaptability, particularly in sectors such as hospitality, aviation, healthcare services, and corporate operations. Within this framework, English language skills serve as a foundational employability asset that enables graduates to engage with clients, colleagues, and stakeholders in complex and dynamic environments.

In the Thai higher education context, stakeholder-driven research has reinforced this perspective. Employers have highlighted the importance of integrated English

competencies alongside essential skills such as teamwork, critical thinking, service orientation, and information technology literacy (Sararit et al., 2025). These findings underscore the need for English-major curricula to move beyond form-focused instruction toward learning designs that connect language skills with real workplace expectations.

Employability Skills in the Era of Technological Change

Employability in contemporary labor markets is increasingly conceptualized as a multidimensional construct encompassing transferable skills, professional identity, and lifelong learning capacity. Jackson (2016) argues that employability development involves not only skill acquisition, but also the formation of a pre-professional identity that enables graduates to navigate changing work contexts. This perspective is particularly relevant in the context of rapid technological advancement, where graduates must continuously adapt to new tools and work processes.

International policy and labor market analyses consistently indicate that while technology alters how work is performed, human skills remain central to career sustainability. Reports by the Organisation for Economic Co-operation and Development (2019) and the World Economic Forum (2023) emphasize that skills such as communication, empathy, creativity, and complex problem-solving are less susceptible to automation and increasingly valued by employers. These

competencies are especially critical in service-based professions, where human interaction and trust-building form the core of professional performance.

For English major graduates, employability therefore depends on the integration of language proficiency with broader human-centered skills. Effective communication, service mind, and ethical judgment are not only linguistic outcomes, but also employability attributes that enable graduates to function in technology-mediated workplaces. This integrated view of employability provides an important lens for examining how graduates experience the impact of AI on their careers.

Artificial Intelligence and Workplace Task Transformation

Artificial intelligence has become a significant driver of workplace transformation, particularly in tasks involving data processing, documentation, communication, and routine decision-making. Rather than fully replacing occupations, AI is widely understood to restructure job tasks, automating repetitive functions while augmenting human decision-making (Organisation for Economic Co-operation and Development, 2019; World Economic Forum, 2023). This task-based perspective is crucial for understanding AI's impact on graduate careers.

Several studies indicate that AI is commonly used in professional contexts to support administrative work, customer interaction systems, information retrieval, and content generation. However, research also consistently shows that AI has limitations in

areas requiring emotional intelligence, contextual understanding, ethical judgment, and complex interpersonal communication (Manyika et al., 2017; World Economic Forum, 2023). These findings suggest that AI functions most effectively as a supportive tool rather than an autonomous agent in human-centered professions.

For graduates in language-related fields, AI's role is particularly salient. AI tools increasingly assist with writing, translation, customer communication, and information management, reshaping how language is used at work (Babashahi et al., 2024). At the same time, the non-substitutable nature of human interaction highlights the continued importance of communicative competence, empathy, and professional judgment, as soft skills become even more crucial in an AI-augmented workplace (Fitzgerald, 2025). Understanding graduates' lived experiences with AI in workplace contexts is therefore essential for examining how English major graduates navigate AI-supported work environments and sustain their employability.

Artificial Intelligence in Higher Education and Language Learning

The integration of AI into higher education has attracted growing scholarly attention, particularly in relation to learning analytics, automated feedback, and personalized learning systems. A systematic review by Zawacki-Richter et al. (2019) revealed that much of the existing research focuses on technological functionality and system efficiency, while comparatively fewer studies

address pedagogical design and teachers' roles in AI-enhanced learning environments. This imbalance suggests a need for research that foregrounds instructional decision-making and learning outcomes aligned with real-world demands.

In language education, AI has been explored as a tool for supporting writing development, grammar correction, pronunciation practice, and formative feedback through intelligent computer-assisted language learning and generative AI applications (Weng & Chiu, 2023). While these applications offer potential benefits, researchers caution against uncritical adoption, noting risks related to learner overreliance, reduced autonomy, and the loss of meaningful human interaction and communicative authenticity (Moorhouse & Kohnke, 2024). Consequently, educators are encouraged to adopt AI in ways that support learning goals while preserving the human dimensions of language use.

International guidance further emphasizes the importance of human-centered AI integration in education. UNESCO (2023) advocates for responsible AI use that enhances learning while safeguarding ethical considerations, data privacy, and critical thinking. These principles are particularly relevant for English major graduates, whose professional roles require not only technological competence, but also communicative effectiveness, ethical judgment, and responsible engagement with AI in workplace contexts.

AI Literacy and Responsible Use of Artificial Intelligence

In educational contexts, AI literacy is increasingly viewed as an essential competency for preparing students to function effectively in AI-supported workplaces. Educators are encouraged to design learning experiences that enable students to use AI as a tool for enhancing productivity while maintaining human judgment and accountability (Zawacki-Richter et al., 2019). This includes teaching students how to critically assess AI-generated content, ensure ethical and responsible use of technology, and integrate AI outputs with human expertise and contextual understanding.

For English-major graduates who frequently use AI tools for communication-related tasks such as writing, translation, customer interaction, and information retrieval, AI literacy plays a particularly important role. Graduates must be able to evaluate AI-generated language, adapt it appropriately to professional contexts, and ensure that communication remains accurate, ethical, and culturally appropriate. Therefore, AI literacy should be considered an important component of employability preparation in AI-augmented professional environments.

AI-Blended Learning and Instructional Design for Employability

AI-blended learning builds on established blended learning principles by integrating AI tools into thoughtfully designed instructional environments. Contemporary definitions of blended learning emphasize the strategic combination of face-to-face and digital learning

activities to promote active engagement and authentic skill development (Hrastinski, 2019). When enhanced with AI, blended learning environments can simulate workplace scenarios, provide timely feedback, and support reflective learning processes that are relevant to professional contexts.

From an employability perspective, AI-blended learning offers a conceptual framework for understanding how graduates may be prepared to work in AI-supported environments. Learning tasks that resemble AI-mediated workplace activities can support the development of both technical familiarity and human-centered competencies, such as communication, collaboration, and judgment. Despite growing interest in AI-blended learning, empirical research that connects instructional design with graduates' real workplace experiences remains limited, particularly from the perspectives of those who have already entered the workforce. This gap highlights the need for studies that examine how graduates encounter AI-supported tasks and human-centered skills in professional environments, which can then inform discussions of employability preparation in higher education.

Methodology

Research Design

This study employed a mixed-methods descriptive research design, in which a structured questionnaire served as the primary instrument for collecting data related to all three research questions, including

graduates' employment sectors, AI-supported workplace tasks, and non-substitutable human skills. To complement and validate the survey findings, semi-structured interviews were conducted with selected graduates in order to obtain deeper explanations and contextualized accounts of their workplace experiences with artificial intelligence.

This design was appropriate as it allowed the study to capture both broad patterns across a large group of English graduates and rich qualitative insights into how AI is experienced in real professional contexts, thereby strengthening the interpretive depth and credibility of the findings.

Participants

The participants consisted of graduates from the Communicative English for Business program at a private higher education institution in Thailand. A total of 109 graduates responded to the online questionnaire, representing seven graduating cohorts (Generation 1-7). To obtain deeper and more contextualized insights into graduates' workplace experiences with artificial intelligence, 15 graduates were purposively selected for semi-structured interviews based on their willingness to participate and their employment in diverse professional sectors, including modern trade, service industries, health and wellness businesses, and other corporate roles. This diversity of employment contexts enabled the study to capture a broad range of perspectives on how AI is utilized across different workplace settings.

Research Instruments

The Questionnaire

The study employed a structured online questionnaire as the primary research instrument, designed to collect data corresponding to the three research questions. The questionnaire consisted of five parts: demographic and background information, employability and career details, AI-supported workplace tasks, non-substitutable human skills, and perceptions of whether AI could replace human workers. These sections were used to examine graduates' employment sectors, the types of workplace tasks enhanced by AI, and the human competencies perceived as irreplaceable. All the questions asked were approved for content validity by three experts in the field of English language learning. All the questions were reviewed and approved for content validity by three experts in the field of English language learning. Furthermore, the questionnaire was tested for reliability using Cohen's Kappa ($k = 0.81$), indicating a high level of agreement.

In-depth Interviews

To complement the questionnaire data, semi-structured interviews were conducted with selected graduates to obtain deeper and more contextualized insights into their workplace experiences with artificial intelligence. The interviews were used to clarify and validate patterns observed in the survey data and to provide illustrative examples of how AI is used and experienced across different professional contexts.

Data Collection Procedures

Data collection was conducted in two phases. First, the online questionnaire was distributed to graduates of the Communicative English for Business program, yielding 109 valid responses. This phase provided quantitative data addressing all three research questions. Following the survey, semi-structured interviews were conducted with selected participants through online and face-to-face sessions, depending on participants' availability, to obtain deeper and more contextualized explanations of their workplace experiences with artificial intelligence. Each interview lasted approximately 30-45 minutes and was audio-recorded with participants' consent. Ethical considerations, including voluntary participation, confidentiality, and anonymity, were strictly observed throughout the data collection process.

Data Analysis

Quantitative data obtained from the questionnaire were analyzed using descriptive statistics, including frequencies and percentages, to summarize graduates' employment sectors, the types of workplace tasks supported by artificial intelligence, and perceptions of non-substitutable human skills. These analyses were used to address the three research

questions by identifying patterns and trends in graduates' career contexts and AI use.

Qualitative data from the semi-structured interviews were transcribed and analyzed through descriptive thematic summarization. Key themes and illustrative examples were identified to support, clarify, and contextualize the quantitative findings, allowing for a richer interpretation of graduates' workplace experiences with artificial intelligence.

Confidentiality of the Participants

Participation in the study was voluntary, and informed consent was obtained from all participants prior to data collection. Participants were informed that their responses would be kept confidential and used solely for research purposes. All data were anonymized to ensure that individual identities could not be identified in any reports or publications resulting from the study.

Results

Research Question 1

Based on responses from 109 graduates, English major graduates were employed across four main sectors, with a strong concentration in service-oriented industries as shown in Table 1.

Table 1 Employment Sectors of English Major Graduates (N = 109)

Employment Sectors	Frequency	Percentage
Service (Hospitality, aviation, customer service, front office, spa, IT support, call center etc.)	69	63.3
Modern Trade (Retail, cosmetics, convenience stores, e-commerce, online marketing, management)	22	20.2
Health and Wellness (Hospitals, wellness centers, clinics, spa services)	12	11.0
Others (education, government)	6	5.5

The results show that nearly two-thirds of graduates (63.3%) worked in service roles requiring frequent customer interaction and real-time English use. Modern trade (20.2%) included retail, luxury brands, e-commerce, and management positions involving customer communication and coordination with business partners. Health and wellness (11.0%) comprised hospitals, clinics, and spa businesses where English supported patient communication and service explanation. A smaller group (5.5%) worked in other sectors such as education and government. Overall, most graduates

were employed in service-related sectors, followed by modern trade and health and medical services.

Research Question 2

The analysis of questionnaire and interview data indicated that artificial intelligence was used by English major graduates to support a wide range of workplace tasks across different functional areas. As shown in Table 2, AI-supported activities were not limited to a single type of work but were integrated into multiple dimensions of graduates' daily professional responsibilities.

Table 2 Summary of AI-Assisted Tasks Reported by Graduates in Different Employment Sections

Work Function	Examples of AI-Assisted Tasks Reported by Graduates in Different Employment Sections
Data & Documentation	Drafting and summarizing documents, grammar checking, translation, proofreading, and report writing
Customer Service & Sales	FAQ/chat support, responding to customer inquiries, customer information retrieval, billing/cashier support
Aviation & Travel	Online check-in and self-service systems, biometric processes, reservation/ticket support, and travel-related service systems
Education & Learning	Generating learning materials, creating exercises and practice tasks, and supporting training preparation
HR & Talent Acquisition	Screening candidates, filtering resumes, supporting recruitment workflows, and matching applicants to requirements
Marketing & Communication	Creating promotional content, drafting social media posts, campaign communication, and brand messaging support
Creative & Technical	Image/content generation, coding support, data analysis assistance, and technical problem-solving support
Health & Medical Services	Supporting patient/customer communication, administrative coordination, information searching, and documentation support
Routine & Administrative Support	Scheduling, information searching, form completion, record keeping, and standard operational support

In the area of data and documentation, graduates reported using AI tools to draft and summarize documents, check grammar and language accuracy, perform translations, and prepare reports. These functions were commonly used to support professional communication, internal documentation, and written correspondence in English.

Within customer service and sales, AI was used to assist with frequently asked

questions, customer inquiries, live chat support, and transaction-related processes such as billing and cashier systems. Graduates working in service-oriented positions indicated that AI-enabled systems helped them retrieve information quickly and respond to customers more efficiently.

For those working in aviation and travel services, AI-supported technologies included online check-in systems, self-service kiosks,

biometric processing, and reservation and ticketing platforms. These systems were used to support passenger handling, flight information management, and customer service operations.

In education and learning-related roles, graduates reported using AI to generate learning materials, create exercises, and prepare training content or presentations. AI tools were also used to assist with content organization and instructional support in professional training contexts.

Graduates working in human resources and talent acquisition reported using AI to screen job applications, filter resumes, and support recruitment and selection processes. These tools were used to manage large volumes of applicant data and streamline hiring workflows.

In marketing and communication, AI supported the creation of promotional content, social media posts, and campaign materials, as well as the preparation of written communication for branding and customer engagement.

AI was also used in creative and technical tasks, such as image generation, content creation, coding support, and data analysis, particularly among graduates working in digital, media, and technical roles.

In health and medical service settings, graduates reported using AI to support patient and customer communication,

information searching, appointment coordination, and documentation. AI was used to assist with service explanation, record management, and routine operational support in hospitals, wellness centers, and spa-related businesses.

Finally, in routine administrative and operational support, AI was applied to scheduling, information searching, form completion, and record keeping. Graduates in health and medical service settings also reported using AI to assist with customer or patient communication, administrative coordination, and information retrieval.

Overall, the findings show that artificial intelligence was used by English major graduates to support a broad range of workplace tasks across multiple functional areas, including data and documentation, customer service and sales, aviation and travel services, health and medical services, education and training, human resources, marketing and communication, creative and technical work, and routine administrative operations. These results indicate that AI was integrated into diverse aspects of graduates' daily professional activities across different employment sectors.

Research Question 3

The analysis of the questionnaire and interview data showed that graduates consistently believed that artificial intelligence could not replace core human abilities that are essential to their professional work.

Table 3 Summary of Non-Substitutable Human Skills and Job Functions of English Major Graduates

Human Skill Categories	Human Skills and Job Functions That AI Cannot Replace by Graduates
Emotion & Empathy	Understanding customers' feelings, showing care, building trust, responding with warmth, handling emotional situations, and providing human-centered service (service mind)
Complex Problem-Solving	Analyzing unexpected situations, solving customer problems, making judgments when rules do not apply, and adapting solutions to real-world constraints
Human Interaction & Communication	Talking to customers, negotiating, persuading, explaining information clearly, handling complaints, and managing relationships with clients and colleagues
Creativity & Innovation	Designing service experiences, creating new ideas, planning events, developing new approaches, and adapting services to unique customer needs
Human Care & Professional Responsibility	Taking responsibility for outcomes, giving meaningful feedback, supporting others, making ethical decisions, and providing personalized attention that AI cannot deliver

As summarized in Table 3, these non-substitutable skills were grouped into five main categories: emotion and empathy, complex problem-solving, human interaction and communication, creativity and innovation, and human care and professional responsibility.

In the area of emotion and empathy, graduates emphasized that AI cannot genuinely understand or respond to human feelings. Participants reported that their work requires showing care, reading emotional cues, comforting customers, and delivering service with a service

mind. These skills were considered especially important in customer-facing roles, health and wellness services, and hospitality contexts.

Regarding complex problem-solving, graduates noted that while AI can provide information or suggestions, it cannot effectively deal with unexpected situations, conflicting needs, or problems that require situational judgment. Participants described their roles as involving frequent decision-making when systems do not provide clear solutions, particularly in service recovery, customer complaints, and operational disruptions.

For human interaction and communication, graduates highlighted the importance of speaking, listening, negotiating, and persuading in real interactions with customers, colleagues, and partners. They reported that successful communication requires understanding context, adjusting tone, and building relationships—functions that AI was not perceived to perform effectively.

In terms of creativity and innovation, graduates indicated that their work often involves designing service experiences, planning activities or events, creating new ideas, and adapting content or solutions to meet specific customer needs. These creative processes were viewed as dependent on human imagination and experience rather than automated generation.

Finally, human care and professional responsibility were identified as critical aspects of graduates' work. Participants emphasized that humans are responsible for decisions, ethical judgment, and the quality of service delivered. Tasks such as giving meaningful feedback, supporting others, and taking responsibility for outcomes were seen as inherently human and not transferable to AI systems.

Overall, the findings indicate that English major graduates perceive core human abilities—particularly emotion and empathy, complex problem-solving, human interaction and communication, creativity, and professional responsibility—as non-substitutable by artificial intelligence. These skills were viewed as essential to their daily work and central to

their continued employability in AI-supported workplace environments.

Discussion

The findings of this study provide important insights into English major graduates' careers and their experiences with artificial intelligence in contemporary workplaces. This might be because service-oriented industries rely heavily on effective interpersonal communication and interaction with international customers, making English proficiency a valuable skill in these sectors. Consistent with previous research on graduate employability, the results confirm that English language graduates are predominantly employed in service-oriented and communication-intensive sectors such as hospitality, modern trade, health and wellness, aviation, and customer service (Jackson, 2016; Clarke, 2018; Sararit et al., 2025). These sectors require continuous interpersonal interaction, real-time communication, and the use of English in authentic professional contexts. This employment pattern reinforces the argument that English language proficiency functions not as an isolated academic skill, but as a core workplace competency embedded within broader service and professional practices.

The results for the second research question demonstrate that artificial intelligence is widely integrated into graduates' daily work, supporting tasks across multiple functional areas including documentation, customer service, marketing, recruitment, education, and health-related administration.

This finding aligns with global labor market analyses that emphasize task transformation rather than full job replacement, where AI automates routine and information-based functions while humans remain responsible for higher-level communication and decision-making (Organisation for Economic Co-operation and Development, 2019; World Economic Forum, 2023). The broad use of AI in service, modern trade, and health contexts reflects how AI has become a general-purpose workplace tool rather than a specialized technology restricted to technical professions.

At the same time, the third research question reveals that graduates strongly perceive certain human skills as non-substitutable by AI, particularly emotion and empathy, complex problem-solving, human interaction, creativity, and professional responsibility. These findings are consistent with international research that highlights the resilience of social, emotional, and creative skills in the era of automation (Organisation for Economic Co-operation and Development, 2019; World Economic Forum, 2023). Such soft skills are required by their employers and stakeholders (Sararit et al., 2025). In service-based professions, such as those dominant among English major graduates, effective communication depends not only on linguistic accuracy but also on the ability to interpret emotions, negotiate meaning, and build trust. This supports the employability framework proposed by Jackson (2016), which emphasizes that sustainable careers depend on personal attributes, identity, and contextual competence in addition to technical skills.

The results are also consistent with research on AI in higher education and language learning. While AI offers valuable support for writing, translation, and content generation, scholars caution that uncritical reliance on AI can reduce learner autonomy and weaken communicative authenticity (Zawacki-Richter et al., 2019; Moorhouse & Kohnke, 2024). Graduates in this study did not reject AI; rather, they viewed it as a supportive tool that enhances efficiency while leaving human judgment, care, and communication at the center of professional practice. This finding supports UNESCO's (2023) call for human-centered AI that enhances rather than replaces human agency in education and work.

Implications of AI-Blended Instruction for Employability Preparation

The findings of this study suggest that English-major curricula must move beyond a simple focus on either language proficiency or digital skills in isolation. Instead, AI-blended learning should be designed to integrate English language development with authentic workplace tasks that reflect how graduates actually use AI in their professional roles. This aligns with blended learning theory, which emphasizes the strategic combination of face-to-face and digital learning to support active and contextualized learning (Hrastinski, 2019). Given that graduates use AI extensively for writing, documentation, customer interaction, and information management, English courses should incorporate AI-supported activities such as drafting professional emails with AI assistance, simulating customer service chats,

and using AI tools for report preparation and translation. At the same time, instructional design must deliberately cultivate the human skills identified in RQ3, including empathy, communication, problem-solving, and creativity. For example, role-plays, case-based discussions, service recovery simulations, and collaborative projects can be integrated with AI tools to ensure that technology enhances rather than replaces meaningful human interaction.

These results also indicate that employability preparation should focus on AI literacy, not merely technical competence. Graduates need to understand when and how to use AI appropriately, how to verify and adapt AI-generated content, and how to apply human judgment in AI-mediated work. This approach reflects UNESCO's (2023) emphasis on ethical, responsible, and human-centered AI use in education. By embedding these principles into AI-blended instruction, English-major programs can prepare graduates to remain effective communicators and professionals in AI-augmented workplaces.

Conclusions

This study examined English major graduates' career sectors, the workplace tasks supported by artificial intelligence, and the human skills perceived as non-substitutable by AI. The findings showed that most graduates were employed in service-oriented, modern trade, and health-related industries where

English communication and interpersonal interaction are central to job performance. Artificial intelligence was widely used to support tasks such as documentation, customer service, marketing, recruitment, education, and administrative work. However, graduates consistently identified emotion and empathy, complex problem-solving, human interaction, creativity, and professional responsibility as essential human competencies that AI cannot replace. Together, these results indicate that AI functions primarily as a supportive tool in graduates' professional lives, while human communication and judgment remain critical to employability in AI-augmented workplaces.

Limitation of the Study

This study was conducted with graduates from a single English-major program at one private higher education institution in Thailand, which may limit the generalizability of the findings. In addition, the data were based on self-reported survey responses and a small number of interviews, which may not fully capture all possible workplace experiences.

Recommendations for Further Research

Future studies could include graduates from multiple institutions. Longitudinal research and employer-focused studies would also help to deepen understanding of how artificial intelligence continues to shape employability.

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