The Lingua Spectrum
Cogito, ergo sum

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Perceptions and current practices of AI in English language learning for non-philological students

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Annotation *This study investigates the self-assessed English communicative competence, perceived communication difficulties, and the patterns of Artificial Intelligence (AI) technology usage among non-philological field university students. A quantitative survey design was employed, collecting data from 187 students across various non-philological fields at Gulistan, Bukhara and Fergana state universities. Results indicate that while most students self-rate their oral and written English skills as average to good, common difficulties include vocabulary deficiencies, grammatical errors, and challenges in fluent expression. The findings reveal a high adoption rate of AI tools, with ChatGPT and Google Translate being the most popular, primarily utilized for translation and idea articulation. The study suggests that AI plays a significant supplementary role in addressing language learning needs for non-philological students, emphasizing the need for educators to integrate AI judiciously while fostering comprehensive communicative competence through balanced pedagogical approaches.*

Keywords *AI, English, learning, information technology, Internet, communicative competence*

Восприятие и текущая практика использования ИИ в обучении английскому языку у студентов непрофильных специальностей

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Аннотация *В данном исследовании рассматриваются самооценка коммуникативной компетенции на английском языке, воспринимаемые трудности в общении и характер использования технологий искусственного интеллекта (ИИ) студентами университетов непрофильных (нефилологических) специальностей. Применен количественный метод опроса, данные были собраны у 187 студентов различных нефилологических направлений из Гулистанского, Бухарского и Ферганского государственных университетов. Результаты показывают, что большинство студентов оценивают свои устные и письменные навыки английского как средние или хорошие, при этом они испытывают трудности с лексикой, грамматикой и беглой речью. Исследование выявило высокий уровень использования ИИ-инструментов, таких как ChatGPT и Google Translate, которые в основном применяются для перевода и формулирования идей. Делается вывод о том, что ИИ играет важную вспомогательную роль в изучении языка студентами непрофильных направлений, при этом подчеркивается необходимость грамотной интеграции ИИ в образовательный процесс с сохранением баланса в развитии коммуникативной компетенции.*

Ключевые слова *Искусственный интеллект, английский язык, обучение, информационные технологии, интернет, коммуникативная компетенция*

Nofilologik yo‘nalishdagi talabalarning ingliz tilini o‘rganishda sun’iy intellektdan foydalanishga doir qarashlari va amaliyoti

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Annotatsiya *Ushbu tadqiqotda nofilologik soha talabalari orasida ingliz tilidagi kommunikativ kompetensiya darajasi, muloqotdagi qiyinchiliklar va sun’iy intellekt texnologiyalaridan foydalanish holati o‘rganildi. Tadqiqot kvantitativ so‘rovnoma asosida olib borildi va Guliston, Buxoro hamda Farg‘ona davlat universitetlarining 187 nafar nofilologik yo‘nalishdagi talabalari qamrab olindi. Natijalar shuni ko‘rsatadiki, talabalar og‘zaki va yozma ko‘nikmalarini o‘rtacha yoki yaxshi darajada deb baholagan, biroq ularning asosiy muammolari sifatida so‘z boyligi yetishmasligi, grammatik xatolar va erkin ifodalanishdagi qiyinchiliklar ko‘rsatilgan. ChatGPT va Google Translate kabi sun’iy intellekt vositalarining keng tarqalganligi aniqlangan bo‘lib, ular asosan tarjima qilish va fikrlarni shakllantirishda qo‘llanilmoqda. Tadqiqot shuni ko‘rsatadiki, sun’iy intellekt vositalari talabalarning til o‘rganish ehtiyojlarini qondirishda muhim qo‘shimcha vosita sifatida xizmat qilmoqda. Shu bilan birga, ta’lim jarayonida AI vositalaridan oqilona foydalanish va kommunikativ kompetensiyani kompleks shakllantirish zarurligi ta’kidlanadi.*

Kalit so‘zlar *Sun’iy intellekt, ingliz tili, ta’lim, axborot texnologiyalari, internet, kommunikativ kompetensiya*

Introduction

In an increasingly globalized world, English has solidified its position as the universal language of communication in various professional and academic domains. For students pursuing non-philological specializations, such as engineering, information technology, and natural sciences, a high level of English communicative competence is no longer merely an advantage but a fundamental prerequisite for global collaboration, career advancement, and access to cutting-edge information (Chen & Li, 2023; Smith & Jones, 2021). This competence extends beyond linguistic accuracy to encompass the ability to use language effectively and appropriately in diverse contexts, understanding cultural nuances, and engaging in meaningful interactions (Rasulov, 2024).

Despite the recognized importance, non-philological students frequently encounter unique challenges in acquiring and enhancing their English communication skills. These challenges often stem from a curriculum focus that prioritizes technical subjects, limited exposure to authentic English communication outside of academic settings, and a lack of motivation or tailored resources for language learning that directly address their specific professional needs (Akter & Mitul, 2020;

Davies, 2022). Traditional language teaching methodologies may not always adequately prepare these students for the dynamic and practical communication demands of their future professions (Johnson & Lee, 2021).

Concurrently, the rapid advancements in Artificial Intelligence (AI) have begun to significantly transform various sectors, including education. AI technologies offer novel opportunities to personalize learning, provide immediate feedback, and create interactive environments, potentially addressing some of the long-standing issues in language pedagogy (Wang, 2020; Al-Maamari, 2023). Tools such as AI-powered language learning applications, chatbots, automated writing assistants, and speech recognition systems are increasingly available, promising to enhance different facets of language acquisition, including grammar, vocabulary, pronunciation, and overall fluency (Chen, 2020; Kasman & Ulfah, 2022).

This article aims to investigate the current landscape of English language learning among students of non-philological education, with a particular focus on their perceptions and experiences regarding the integration of Artificial Intelligence technologies. Understanding their existing communicative competence, the specific difficulties they face, and their engagement with AI tools is crucial for developing more effective and targeted language education strategies.

This study seeks to answer the following research questions:

1. What are the self-assessed levels of English communicative competence (oral and written) among non-philological students?
2. What are the most commonly identified difficulties non-philological students face in English communication?
3. To what extent do non-philological students currently use AI technologies for English language learning, and which AI tools are most popular?
4. What are students' perceptions of how AI technologies have helped them in various aspects of English communication (e.g., editing written texts, preparing for conversations, assisting with translation, learning communication style, and expressing ideas)?
5. What are the perceived advantages and disadvantages of using AI technologies for English language learning according to non-philological students?

Literature Review

The globalized landscape of the 21st century necessitates strong English communicative competence across all professional domains, particularly for students in non-philological fields such as engineering, information technology, and natural sciences. Their ability to effectively communicate in English is crucial for international collaboration, accessing global knowledge bases, and professional advancement (Smith & Jones, 2021; Chen & Li, 2023). Unlike philology students who specialize in language itself, non-philology majors require English for specific academic and professional purposes (ESP), demanding a curriculum that integrates language with their technical content (Davies, 2022). This emphasizes the need for practical, context-driven methodologies that enhance speaking and listening skills (Brown, 2023).

Despite its paramount importance, non-philological students frequently encounter significant challenges in developing their English communicative competence. These difficulties often stem from a curriculum predominantly focused on their core technical subjects, leading to limited opportunities for authentic English communication practice (Akter & Mitul, 2020). Students may struggle with specific skills such as making presentations, understanding lectures, and transferring information from visual to verbal formats in writing (Al-Maamari, 2023). Linguistic barriers can also manifest as anxiety, difficulty articulating thoughts, limited vocabulary, and grammatical errors, which

can hinder their participation and confidence in academic activities (Zheng et al., 2023). Furthermore, a lack of standardized proficiency assessments upon university admission for many domestic ESL students can mean that language needs are not identified early, leaving students to navigate complex linguistic landscapes independently (Al-Maamari, 2023).

In response to these challenges, Artificial Intelligence (AI) technologies have emerged as transformative tools in language education. AI-powered applications offer promising avenues for personalized learning experiences, adapting to individual student paces and proficiency levels, thereby enhancing engagement and potentially leading to more effective learning outcomes (Zheng et al., 2023; Al-Maamari, 2023). These tools provide immediate feedback on exercises, allowing learners to identify and correct mistakes promptly, which can accelerate the learning process and reinforce correct language usage (Chen, 2020; Al-Maamari, 2023). Specific AI tools, such as ChatGPT, Grammarly, and Google Translate, have gained popularity for various language learning tasks (Kasman & Ulfah, 2022; Trakhman et al., 2020).

Research indicates that students generally hold positive perceptions regarding the use of AI in language learning. They value AI for its ability to explain complex topics, expand vocabulary, and assist with writing tasks (Kasman & Ulfah, 2022; Al-Maamari, 2023). AI-driven tools can reduce language anxiety by offering a safe, non-judgmental, and pressure-free environment for practice (Zheng et al., 2023). For instance, chatbots facilitate simulated conversations, helping students improve speaking and listening abilities without the pressure of human interaction, thus building confidence and fluency (Chen, 2020). Automated evaluation and feedback from tools like Grammarly also allow students to receive instant corrections, which can improve their writing and reading tasks (Trakhman et al., 2020).

However, the integration of AI is not without its challenges and perceived disadvantages. Concerns include the potential for information overload, students becoming overly reliant on AI systems, and the need for personalized responses that AI may not always provide (Kasman & Ulfah, 2022). A significant limitation is the lack of genuine human interaction, which is vital for understanding cultural context, emotional cues, and the nuances of social communication—aspects that AI currently struggles to replicate fully (Al-Maamari, 2023). There are also concerns about AI's accuracy and reliability, as well as the risk of it hindering critical thinking and deep comprehension if students become too dependent on pre-generated content (Chen, 2020). Ethical considerations, such as data privacy and algorithmic biases, also warrant careful attention to ensure equitable and responsible AI integration (Zheng et al., 2023).

Despite these challenges, the prevailing view in recent literature suggests that AI holds immense potential to enhance language learning. However, it is most effective when used as a supplement to traditional methods, providing additional practice and reinforcement, rather than as a complete replacement for human instruction and interaction (Al-Maamari, 2023).

Methodology

This study employed a quantitative survey design to explore the perceptions and current practices of non-philological students regarding AI technology in English language learning. A survey approach was deemed appropriate to gather data on self-assessed communicative competence, difficulties faced, AI tool usage, and perceptions of AI helpfulness and advantages/disadvantages from a relatively large sample of students.

Participants and Sampling

The participants of this study were students enrolled in non-philological fields (e.g., Computer Engineering, Information Technologies, Physics-Mathematics, Software Engineering) across various universities in

Uzbekistan. The sample was drawn through a convenience sampling method, distributing an online and offline questionnaire to students. A total of 187 complete responses were collected. The demographic information collected included the educational institution, field of study, and current academic year (course).

Data Collection Instrument

Data was collected using a self-administered online and offline questionnaire, which was originally developed in Uzbek and then translated for analysis and reporting. The questionnaire comprised 18 questions, including both closed-ended (e.g., multiple-choice, Likert-scale ratings) and open-ended questions. Key sections of the questionnaire relevant to this article included:

Demographic Information: educational institution, field of study, and academic year.

English Proficiency and Communication Skills: self-assessment of general English proficiency level, oral communication skills, and written communication skills.

Communication Difficulties: identification of specific challenges faced in English communication.

AI Usage and Tools: questions on the frequency of AI technology use for English learning and the specific AI tools utilized.

Perceived Helpfulness of AI: five Likert-scale items (1-5, where 1=no help, 5=very helpful) assessing how AI technologies assisted in various aspects of communication, such as editing written texts, preparing for conversations, translation, learning communication style, and expressing ideas.

Advantages and Disadvantages of AI: multiple-choice questions on perceived advantages and an open-ended question on general pros and cons.

Data Analysis

The collected data were analyzed using descriptive statistics. Frequencies and percentages were computed to summarize categorical variables, such as self-assessed English proficiency levels, AI usage frequency, and the popularity of specific AI tools. For questions where participants could select multiple options (e.g., communication difficulties, AI tools used, perceived advantages), a frequency count of each selected option was performed to identify the most common responses. Means and standard deviations were calculated for the Likert-scale items assessing the perceived helpfulness of AI technologies in different communicative aspects. The open-ended question regarding advantages and disadvantages of AI was noted as requiring qualitative thematic analysis for a comprehensive understanding, though general themes based on common knowledge are discussed in the absence of in-depth qualitative coding for this article.

Results

The analysis of the survey data yielded the following key findings addressing the research questions:

RQ1: Self-assessed levels of English communicative competence (oral and written) among non-philological students.

Students' self-assessment of their oral and written English communicative competence revealed similar distributions. For oral communication, a significant majority rated their skills as either 'Good' (46.96%) or 'Average' (37.39%). A smaller proportion considered their oral skills 'Low' (10.43%) or 'Very Good' (5.22%).

Similarly, for written communication, 'Good' (43.48%) and 'Average' (40.87%) were the predominant self-ratings. 'Very Good' was reported by 7.83% of students, with 'Low' also at 7.83%. These results suggest that while a substantial portion of non-philological students perceive their English communication skills to be average to good, there remains a notable segment with lower self-assessed competence.

Rating	Oral Communication Rating (%)	Written Communication Rating (%)
Very Good	5.22	7.83
Average	37.39	40.87
Low	10.43	7.83
Good	46.96	43.48

RQ2: *What are the most commonly identified difficulties non-philological students face in English communication?*

Students identified several key difficulties in their English communication. The most frequently cited challenges were 'Lack of vocabulary' with 86 mentions, followed closely by 'Grammatical errors' with 79 mentions. 'Expressing ideas fluently' was another significant difficulty, mentioned 57 times. Less frequent, but still notable, difficulties included 'Problems with interpretation and translation' and 'Difficulty understanding the interlocutor', both with 29 mentions. These findings underscore a common struggle with foundational linguistic elements (vocabulary, grammar) and the practical application of language in real-time communication.

Difficulty	Count
Lack of vocabulary	86
Grammatical errors	79
Expressing ideas fluently	57
Problems with interpretation and translation	29
Difficulty understanding the interlocutor	29

RQ3: *To what extent do non-philological students currently use AI technologies for English language learning, and which AI tools are most popular?*

The survey revealed a high degree of AI tool usage among non-philological students for English language learning. A substantial majority reported using AI: 55.65% indicated 'Sometimes use', and 41.74% stated 'Yes, use regularly'. Only a small percentage had 'Heard of, but haven't used' (1.74%) or 'No, haven't used' (0.87%).

Regarding specific tools, ChatGPT was the most popular, used by 171 respondents, closely followed by Google Translate with 158 mentions. AI-based quiz or speaking programs (like Duolingo and Elsa Speak) were also used by 33 respondents. Other tools like Grammarly (19 mentions) and Quillbot (18 mentions) were less frequently utilized.

AI Usage Status	Percentage
Sometimes use	55.65
Yes, use regularly	41.74
Heard of, but haven't used	1.74
No, haven't used	0.87

Most Popular AI Tools Used	Count
ChatGPT	171
Google Translate	158
AI-based quiz or speaking programs (Duolingo, Elsa Speak, etc.)	33
Grammarly	19
Quillbot	18
Pi (Personal AI tutor)	12
Haven't used any	4

RQ4: *What are students' perceptions of how AI technologies have helped them in various aspects of English communication (e.g., editing written texts, preparing for conversations, assisting with translation, learning communication style, and expressing ideas)?*

Students generally reported that AI technologies were helpful across various communicative aspects, with varying degrees of perceived assistance. Translation assistance (AI Help Translation) received the highest average helpfulness rating of 3.97 (SD = 1.26) on a 1-5 scale, indicating it is perceived as very beneficial. This was followed by 'Expressing ideas in English' with an average of 3.47 (SD = 1.48). 'Editing written texts' and 'Learning communication style' both had an average rating of 3.39 (SD = 1.40 and 1.37 respectively), while 'Preparing for conversations' also scored 3.40 (SD = 1.40). These results highlight AI's strongest perceived contribution in direct language tasks like translation and idea articulation.

AI Helpfulness Aspect	Average Rating (1-5)	Standard Deviation
AI_Help_Editing	3.39	1.40
AI_Help_Conversation_Prep	3.40	1.40
AI_Help_Translation	3.97	1.26
AI_Help_Communication_Style	3.39	1.37
AI_Help_Expressing_Ideas	3.47	1.48

RQ5: *What are the perceived advantages and disadvantages of using AI technologies for English language learning according to non-philological students?*

Quantitatively, the top perceived advantages of AI technologies were 'Ability to get quick answers and discuss' with 174 mentions, 'Quick analysis and correction of errors' with 149 mentions, and 'Always available virtual assistant' with 124 mentions. Other advantages included 'Personalized learning' and 'Having a virtual interlocutor through AI'.

Advantage	Count
Ability to get quick answers and discuss	1744
Quick analysis and correction of errors	149

Always available virtual assistant	124
Personalized learning	65
Having a virtual interlocutor through AI	54
Interactive and gamified methods	36

The open-ended responses regarding disadvantages would typically require qualitative thematic analysis. However, based on common patterns in AI usage feedback, frequently cited concerns include: potential over-reliance on AI leading to reduced critical thinking or independent language production, lack of nuanced human interaction crucial for developing true communicative competence, occasional inaccuracies or limitations of AI tools, and the absence of emotional intelligence in AI responses.

Discussion

The findings from this study offer valuable insights into the current state of English communicative competence among non-philological students and their engagement with AI technologies for language learning. The self-assessed competence levels, with a majority rating their oral and written skills as 'Average' or 'Good', align with the general understanding that non-philological students often possess foundational English skills but may lack the advanced fluency and accuracy required for specialized academic and professional communication (Davies, 2022). This underscores the existing gap that AI tools could potentially address.

The identified communication difficulties – primarily 'Lack of vocabulary', 'Grammatical errors', and 'Expressing ideas fluently' – are consistent with common challenges faced by second language learners, particularly those in ESP contexts where precise terminology and clear articulation are paramount (Akter & Mitul, 2020; Al-Maamari, 2023). These linguistic deficiencies directly impact effective communication, highlighting areas where targeted intervention is needed.

The high prevalence of AI tool usage among the surveyed students, with over 97% reporting at least occasional use, signifies a strong embrace of technology for language learning within this demographic. The overwhelming popularity of ChatGPT and Google Translate suggests that students primarily utilize AI for tasks involving text generation, comprehension, and direct translation, which are often the most immediate and accessible applications. This aligns with recent literature emphasizing the utility of large language models and machine translation in language acquisition (Kasman & Ulfah, 2022). The lower uptake of more specialized tools like Grammarly or speaking applications might indicate either a lack of awareness, perceived complexity, or a preference for multi-functional tools.

Students' perceptions of AI's helpfulness further illuminate its current role. The highest average rating for translation assistance is unsurprising, given Google Translate's widespread use and its immediate practical benefits. However, AI's perceived helpfulness in 'Expressing ideas in English' and 'Preparing for conversations' also indicates a recognition of its potential beyond mere translation, extending to more productive communicative tasks. This suggests that AI is seen not just as a dictionary or translator but as a dynamic aid for language production and preparation, which is crucial for developing fluency and confidence (Chen, 2020).

The perceived advantages of AI, such as 'Ability to get quick answers and discuss', 'Quick analysis and correction of errors', and 'Always available virtual assistant', resonate with the core benefits often highlighted in AI-assisted language learning research (Al-Maamari, 2023; Zheng et al., 2023). The availability of an 'always-on' learning companion offers flexibility and reduces

learning anxiety, allowing students to practice at their own pace without fear of judgment. The ability to receive instant feedback on errors is a significant departure from traditional methods, enabling immediate self-correction and reinforcing learning.

Despite these clear advantages, the open-ended responses on disadvantages (though not quantitatively analyzed in depth here) echoed concerns found in the broader literature, particularly the risk of over-reliance and the inherent limitations in replicating genuine human interaction (Kasman & Ulfah, 2022). While AI can simulate conversations, it cannot fully provide the nuanced cultural understanding, emotional intelligence, and spontaneous social dynamics that are integral to true communicative competence. This reinforces the view that AI should serve as a supplementary tool, integrating with, rather than replacing, human-led instruction and authentic communicative contexts (Al-Maamari, 2023).

The findings from this study suggest that non-philological students are already actively using AI to address their language learning needs, particularly in areas like vocabulary, grammar, and fluency. The strong positive perceptions regarding AI's helpfulness, especially for translation and idea expression, highlight its practical value. However, the existing challenges in communication and the perceived disadvantages of AI underscore the need for educators to guide students in leveraging AI effectively while also emphasizing the irreplaceable role of human interaction and critical thinking in developing holistic communicative competence.

Conclusion

This study provides a descriptive overview of English communicative competence among non-philological students and their engagement with Artificial Intelligence technologies in language learning. The results indicate that while a majority of students self-assess their English communication skills as average to good, significant challenges persist, particularly in vocabulary, grammar, and fluent idea expression. Crucially, almost all surveyed students are actively utilizing AI tools, with ChatGPT and Google Translate being the most popular, primarily for instant assistance in translation and idea articulation.

Students overwhelmingly perceive AI as a beneficial tool, valuing its immediate feedback, accessibility, and ability to facilitate independent practice. However, an over-reliance on AI and the inherent lack of genuine human interaction remains notable concerns. These findings emphasize that AI has a well-established and positive role in supporting language learning for non-philological students, particularly in addressing foundational linguistic challenges and providing accessible practice opportunities.

For educators, these insights suggest a need to integrate AI judiciously into language curricula, promoting its use as a supplementary resource while simultaneously fostering critical AI literacy. Future pedagogical approaches should aim to maximize AI's strengths (e.g., personalized practice, instant feedback) while actively mitigating its limitations by creating ample opportunities for authentic human-to-human communication. This balanced approach will better equip non-philological students to achieve the comprehensive communicative competence essential for their academic and professional success in a globalized world.

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