



EXPLORING THE EFFICACY OF CHATGPT IN ENHANCING SPECIALIZED COMMUNICATION SKILLS IN ENGLISH LANGUAGE LEARNING

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Abstract. *This research delves into the integration of ChatGPT, a cutting-edge language model, within the realm of English language education, with a specific emphasis on specialized communication. As artificial intelligence (AI) and natural language processing (NLP) technologies gain significance in educational settings, this study contributes to the evolving knowledge base by evaluating the impact of ChatGPT on English language learners' proficiency, particularly in specialized communication, connecting with the field of English for specific purposes (ESP). The utilization of ChatGPT introduces a dynamic and interactive dimension to language learning, enabling learners to partake in realistic conversations and receive immediate feedback. Furthermore, the study explores the adaptability of ChatGPT as a personalized learning tool, bridging the disciplines of educational technology and pedagogy. By addressing individual needs and accommodating different levels of language proficiency, it aligns with the professional cultures of educators, curriculum developers, and researchers in educational technology who seek innovative solutions for personalized learning experiences. The potential of ChatGPT to encourage autonomous learning and provide a supportive environment for language practice is a key point of interest in this research. Employing quantitative measures to assess the success of ChatGPT training, the researchers focused on three human dimensions (cognitive – knowledge, socio-affective – relationship, and psychomotor – action) to gain an overall view of the studied phenomenon. The study specifically investigates the perceptions and evaluation of the workshop by current Generation Z students of English in specialized communication at the University of Ss. Cyril and Methodius in Trnava. The research utilized an online questionnaire in Google Forms, taking advantage of the digital age for efficient data collection. Preliminary findings suggest that learners who wisely use ChatGPT demonstrate enhancements in vocabulary acquisition, syntactic structure, and contextual appropriateness within specialized communication scenarios. Teachers of the English language are likely to be interested in the findings, as they assess the effectiveness of ChatGPT in enhancing language proficiency, especially in specialized communication.*

Key words: *ChatGPT, workshop, Generation Z, English in specialized communication, innovative teaching methods*

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1. INTRODUCTION

Artificial intelligence (AI) is reshaping education by introducing innovative tools like ChatGPT, which enable dynamic, personalized, and interactive learning experiences. As a natural language processing tool, ChatGPT has proven particularly effective in English for Specific Purposes (ESP), where it supports language acquisition alongside professional and intercultural competencies (Chmelíková – Hurajová, 2019). This research examines the efficacy of ChatGPT in enhancing specialized communication skills among Generation Z students (1997 – 2012), known as the Homeland Generation, iGen, post-millennials, or Zoomers – a cohort defined by their digital fluency, social awareness, and evolving educational expectations (Encyclopaedia Britannica online; Henderson, 2023).

A workshop conducted at the University of Ss. Cyril and Methodius in Trnava, Slovakia, focused on raising awareness of ChatGPT's potential to enhance specialized communication in English. The workshop integrated reading comprehension techniques with AI tools and employed design thinking – a methodology originally used in science, industry, and business. Design thinking fosters innovative strategies by understanding user needs and identifying alternative solutions (Pondelíková, 2022; Brooks, 2022). It has also been effectively applied in education, including literature (Sperling, 2022), art (Robins, 2018), translation (Bohušová, 2017; Welnitzová, 2023), and music (Badizadegan, 2019).

Beyond technical skills, the workshop emphasized intercultural competence, which is integral to effective foreign language communication. Intercultural intelligence, developed through approaches like design thinking, equips students to navigate cultural differences and enhances transferable skills such as digital literacy and foreign language proficiency (Dančišinová – Kozárová, 2021; Hurajová – Chmelíková – Luprichová, 2022). As Dančišinová (2022) emphasizes, foreign language education must always align with its practical applications.

English, as a global communication tool, plays a pivotal role in education, science, politics, and culture, making it essential for students to develop both linguistic and sociocultural competencies (Luprichová, 2020). Educators increasingly prioritize holistic approaches, integrating culture into language instruction to provide students with a comprehensive skill set (Chmelíková – Hurajová, 2019). Moreover, modern pedagogy has shifted from traditional methods to innovative practices like case studies, storytelling, and blended learning, which emphasize individuality and adaptability (Šeben Zaťková, 2022).

The primary goal of higher education is to prepare skilled professionals for creative, managerial, and societal roles, equipping them with theoretical knowledge and practical expertise. Achieving this requires carefully aligning teaching methods with educational objectives (Sirotová, 2022). Design thinking serves as a versatile and effective approach for addressing these needs by fostering critical thinking and creativity. It is a problem-solving methodology focused on human needs, creativity, and iterative solutions (Brown, 2008).

Generation Z has grown up with digital technologies shaping their lives. They prioritize societal issues such as healthcare, equity, and environmental sustainability while valuing mentorship and work-life balance (Henderson, 2023). Zers' reliance on digital tools and preference for collaborative, interactive learning reflect their distinct educational needs (Encyclopaedia Britannica online). Their digital identities, shaped by social media and technology, further emphasize the importance of integrating digital tools into education (Pecníková, 2018; Pondelíková, 2020).

The workshop at Trnava addressed these needs by blending AI tools like ChatGPT with design thinking to create a learning environment tailored to Generation Z's preferences. By

combining digital literacy, intercultural competence, and innovative pedagogical methods, the workshop demonstrated the potential of AI-driven approaches to redefine language education and better prepare students for modern challenges.

2. LITERATURE REVIEW

Since the introduction of artificial intelligence in educational settings, numerous research papers have been published exploring its applications and implications. For this review, we have selected the most recent and relevant studies to provide a comprehensive overview.

The integration of AI in educational environments has transformed teaching and learning processes, particularly in English for Specific Purposes (ESP). Advanced models such as ChatGPT have enabled more dynamic, personalized, and interactive learning experiences, offering opportunities to tailor educational content to individual learner needs. Research emphasizes the transformative potential of AI in fostering interactive and adaptive learning processes. AI tools like ChatGPT provide scalable resources that enhance engagement and offer immediate feedback, which supports learners in overcoming linguistic challenges (Zhang, 2024; Oliveira, 2024). These tools have been found to significantly improve learner autonomy and motivation by offering on-demand explanations, grammar correction, and vocabulary expansion (Sinkus – Ozola, 2024). Additionally, Ngo and Hastie recently conducted a study that develops and implements an AI for Academic Purposes framework to integrate AI literacy into an English for Academic Purposes module, resulting in significant improvements in students' confidence in using AI tools, expanded academic applications of AI, enhanced understanding of ethical AI use, and more critical perspectives on AI's limitations and biases (Ngo – Hastie, 2024).

Despite these advantages, the integration of AI in language education is not without criticism. Ali et al. (2024) explore the challenges and potential strategies for implementing ChatGPT in educational settings, systematically analyzing five key dimensions of challenges: user, operational, environmental, technological, and ethical concerns. Their study provides a detailed examination of the limitations of generative AI in education while simultaneously offering strategic solutions to address these challenges, ultimately aiming to guide educators, policymakers, and technology experts in the responsible and effective integration of AI tools like ChatGPT into learning environments (Ali et al., 2024). On the contrary, the study conducted in the UK found a significant negative correlation between AI tool usage and critical thinking abilities, with frequent AI users demonstrating diminished skills in information evaluation and reflective problem-solving. Additionally, the research identified cognitive offloading as a key factor in this decline, suggesting that over-reliance on AI tools for mental tasks may be detrimental to the development and maintenance of critical thinking skills, particularly among younger age groups (Gerlich, 2025). Issues such as data privacy, academic dishonesty, and potential misuse of AI-generated content further complicate the landscape of AI integration in education (Huang, 2023; Ismail – Alosi, 2025). Moreover, generative AI tools in language learning demonstrate significant limitations in comprehending nuanced cultural contexts, idiomatic expressions, and social norms, which are essential for authentic communication and specialized language proficiency. By highlighting the AI's inability to fully grasp contextual subtleties and cultural intricacies, Creely's research underscores the critical importance of human interaction and

cultural immersion in effective language education (Creely, 2023; Zaghlool – Khasawneh, 2023).

The ethical dilemmas surrounding AI usage are also a point of contention. Excessive reliance on AI could homogenize educational experiences, marginalizing unique learner needs and reducing the creative methodologies traditionally employed in teaching (Hassan, 2024; Blodgett – Madaio, 2021). These risks underline the importance of balancing AI tools with human-led instruction to foster cultural awareness and contextual understanding. For instance, UNESCO's International Education Day 2025 emphasizes the need for a balanced approach to integrating artificial intelligence in education, highlighting that AI should complement, rather than replace, essential human elements of learning. The organization calls for investments in training for both educators and students to ensure the responsible use of AI technology, fostering autonomy and well-being. UNESCO advocates for the development of critical AI literacies, equipping learners with the competencies needed to understand and influence AI technologies effectively. Furthermore, it stresses the importance of preserving in-person relationships and emotional intelligence within educational frameworks. This initiative aims to prepare future generations to navigate an increasingly AI-driven world while maintaining a focus on ethical principles and cultural awareness (UNESCO, 2024; 2025).

The research results consistently highlight the potential of a hybrid approach in education that combines AI tools with traditional pedagogical methods. According to the following survey, 71% of teachers and 65% of students believe AI tools are essential for success in college and work, suggesting a growing acceptance of AI integration (Walton Family Foundation, 2024). *The International Journal for Multidisciplinary Research (IJFMR)* emphasizes that the most effective education strategies integrate both personal touch and AI-driven personalization, creating a balanced learning experience (Generale et al., 2025). AI can support teachers by handling administrative tasks, providing personalized learning experiences, and offering immediate feedback, thereby allowing educators to focus on crucial mentoring and engagement. The future of education is not about choosing between AI and human teachers, but about creating a collaborative approach that leverages the strengths of both technological and human elements. Ultimately, this hybrid model aims to create more personalized, equitable, and effective learning environments that prepare both teachers and students for an increasingly technology-driven world (UNESCO, 2025; Papadopoulos, 2024).

The literature provides a balanced perspective on the use of AI, including ChatGPT, in ESP learning environments. While these tools offer significant benefits such as personalization, adaptability, and immediate feedback, they also pose ethical and pedagogical challenges. Future research should focus on developing frameworks that integrate AI within traditional teaching practices to ensure a holistic and effective approach to language education.

3. RESEARCH METHODOLOGY

Quantitative research methodology is a fundamental paradigm in various scientific disciplines. This research employs structured surveys, experiments, and statistical analysis to quantify variables and draw statistical inferences (Pondelíková, 2023a). Quantitative research seeks to produce generalizable findings through objective measurements, and hypotheses testing, providing a systematic approach to understanding phenomena. It offers numerous advantages, making it indispensable in academic investigations. One of the key strengths of quantitative research is its ability to provide a broad overview of a research problem, often through large sample sizes that enhance the generalizability of the findings. In addition, quantitative research relies on data grounded in statistical analysis and mathematical principles, which are often regarded as scientifically objective and rational (Carr, 1994; Denscombe, 2010). However, quantitative research also faces several challenges. This method usually requires large sample sizes, which can be time-consuming to collect and process. Additionally, another significant limitation is its sometimes inadequate capacity to explore the depth and context of human experiences, which can be critical in understanding complex phenomena. This limitation has led to the increasing adoption of mixed methods research, which combines quantitative and qualitative approaches to leverage the strengths of both (Castro et al., 2010).

Quantitative research follows several key steps, including research design, sampling, data collection, data analysis, and interpretation (Pondelíková, 2023b). In this study, data was obtained during a workshop “Writing Texts Workshop with ChatGPT” conducted for students enrolled in the English Language and Culture in Specialized Communication study program at the Department of British and American Studies, Faculty of Arts, University of Ss. Cyril and Methodius in Trnava, Slovakia (research sample see chapter 4). The research presented employed a questionnaire, which is a highly effective method within quantitative research. Ondrejko (2007) identifies the questionnaire as one of the most widely used research tools, attributed to its extensive popularity and frequent use in various fields.

Designing an ideal questionnaire is a complex process that requires careful planning and consideration of various factors to avoid potential pitfalls. Key stages in questionnaire development include identifying the data to be collected, selecting appropriate items, and ensuring the questions are clear and simple. Pre-testing and pilot studies are crucial steps that enhance the questionnaire’s validity, reliability, and responsiveness. Despite their advantages, poorly designed questionnaires can lead to low response rates and unreliable data, which in turn can undermine the integrity of the research findings. Therefore, researchers must adhere to rigorous methodological standards to design and validate questionnaires, ensuring their effectiveness as research tools. The questionnaire remains a popular and efficient method for data collection in quantitative research, provided that it is developed and validated with precious attention to details (Patel – Joseph, 2016).

Questionnaires allow participants to respond to sensitive or personal questions more comfortably than in face-to-face interviews. Anonymity can be ensured by removing identifying information or employing online platforms. Participants are more likely to provide honest and unbiased responses when they feel their privacy is protected, which increases the reliability of the data collected. Moreover, standardization allows using structured question formats, providing all respondents with the same set of questions, minimizing potential bias, and ensuring consistency. Regarding disadvantages, questionnaires often provide limited opportunities for participants to express their thoughts and opinions in detail. One significant

challenge in questionnaire-based research is the potential for low response rates. Many participants may choose not to complete or return the questionnaire. However, the researchers of this study know the students personally, therefore enhancing their credibility in collecting data in this form. Despite not achieving a 100% response rate for the questionnaires, nearly 90% of collected responses still constitute a significant majority, enabling the successful conduct of the research. The researchers designed the questionnaires in strict accordance with methodological procedures for creating questionnaires. The use of closed-ended questions with predetermined response options can limit deeper insight into respondents' perceptions of the studied phenomena (Carr, 1994). The research focused on identifying attitudes and feelings from the "Writing Texts Workshop with ChatGPT".

The authors of the text designed the workshop by adhering to the four key principles of design thinking outlined by Plattner, Meinel, and Leiffel (2011), which are the human rule, the ambiguity rule, the re-design rule, and the tangibility rule. The design thinking process involves phases of empathizing, defining problems, ideating, prototyping, and testing, all of which were integrated into the workshop. This dynamic approach is used to explore innovative and creative solutions to various challenges (Plattner – Meinel – Leiffel, 2011; Howovitz, 2016; Pondelíková, 2022, 2023a, 2023b; Henriksen – Richardson – Mehta, 2017). At its core, design thinking places significant emphasis on the individual, their emotions, and their needs, who, in our case, were university students. The examined research problem was ChatGPT literacy. The main goals were to:

1. assess students' attitudes towards this AI text tool; and
2. map the perception of skills and abilities acquired during the workshop.

To fulfil the set goals, the researchers focused on the cognitive, socio-affective, and psychomotor dimensions. These dimensions were examined through a set of specific questions, and the responses were measured using an identical scaling in the questionnaire (very significantly, significantly, moderately, occasionally, not at all). These questions were key in designing the hypotheses for the study:

Hypothesis (H1): One-third of students (33%) who attended the workshop, and have used ChatGPT extensively, have enhanced their vocabulary and writing style; however, they did not experience such an improvement in their grammar.

Hypothesis (H2): More than one-third of the students perceive thesis writing as less important due to the existence of artificial intelligence (AI) tools; however, less than one-third of students experienced an improvement in their knowledge of academic subjects due to AI.

The questionnaire was divided into five sections. The first section was informative, collecting data on respondents' age and gender. The second section, titled "Personality", examined concentration during the workshop, motivation, and digital skills. The third section, "Social Area", focused on group cohesion, presentation skills, and task fulfilment. The fourth section provided "Recommendations for Practical Educational Processes". The final section, "ChatGPT in Practice", monitored knowledge, pitfalls, ethical boundaries, practical usage, and the impact of ChatGPT on students' enhancement of specialized communication skills in English language learning, as well as their attitudes towards writing theses. The researchers leveraged the digital age by creating online questionnaires using Google Forms, distributing them via email, and processing the data through the platform's automated survey data collection features. Ondrejko (2007) emphasizes the importance of adhering to principles ensuring compliance with relevant laws, aiming for accuracy and objectivity, and seeking to generalize acquired knowledge. Researchers are expected to maintain impartiality and distance from the phenomenon being studied to minimize the influence of subjective attitudes that could bias data analysis.

4. DEFINING RESEARCH SAMPLE

In this study, the primary tool for data collection was an online questionnaire. The initial section of the questionnaire focused on collecting essential demographic information about the participants. Each workshop was structured to accommodate a maximum of 25 participants, organized in small groups of 5. According to the design thinking method, this aligns with best practices in educational workshop design, where smaller groups are preferred to facilitate better communication and individualized attention. We conducted two pilot workshops titled “Writing Texts with ChatGPT”, primarily aimed at third-year students preparing to write their bachelor’s theses affiliated with the university mentioned in chapter 3. Out of 45 students, 7 were men, 37 were women, and 1 identified as other. The participants’ ages ranged from 19 to 24, with the majority being 21 years old (37%). The careful consideration of workshop size, similar age of participants, quality of delivery, and the inclusion of interactive elements are essential for maximizing the effectiveness of educational workshops.

5. RESEARCH RESULTS AND THEIR INTERPRETATION

In the introductory part of the workshop, students selected their topics based on their preferences. For those interested in literature, options included “Reading *Lolita* in the East – Introducing Azar Nafisi’s novel *Reading Lolita in Tehran* for Western readers” or “The Gender Question in *The Hours* by Michael Cunningham.” For the historical field, students could choose based on their preferred topic, such as “Tudor Monarchs: Royal Drama!” or “The Brexit Saga: Britain’s Exit from the EU – Explore the political and economic implications of Brexit and how it reshaped the relationship between the UK and the European Union”. After selecting topics, participants identified their most significant skills to benefit the team and divided roles accordingly: writer, researcher, proofreader, and verifier. They brainstormed their existing knowledge about the topics and used AI tools like ChatGPT or Gemini to gather additional information. Once they had sufficient information, they began formulating their content, using AI tools for stylistic enhancements. The final version, refined and polished, was supposed to meet the quality standards expected of university students. This process required extensive reading comprehension and critical thinking, which is “an essential skill, that enables both students and teachers to find quality sources of information and arrange them in a hierarchy, identify plagiarism, and corroborate authors’ authority” (Javorčíková – Badinská, 2021, p. 656). In the final phase, participants provided feedback, evaluating each other’s work, offering constructive criticism, and suggesting improvements to enhance the final output.

Generation Z is characterized by their tendency to share extensively on social media, favour video content over reading, and communicate primarily through images rather than text (Miština et al. 2022). The internet serves as their primary source of entertainment, and they engage with a variety of applications that provide a sense of anonymity. This shift highlights the need for the education system to evolve in response to the unique expectations and perspectives this generation holds regarding teachers’ role in their lives. Students from this cohort seek universities that integrate their academic experiences with real-world professional opportunities, utilizing digital tools. A highly effective strategy for designing classes that appeal to Generation Z is the integration of AI tools, given their familiarity and comfort with technology. This was further supported by research, which found that the majority of participants (71.1%) did not perceive a deficit in digital skills

during the workshop. Student motivation and engagement in activities are closely linked to this phenomenon. The workshop activities successfully inspired the students, with 71.1% reporting increased motivation, while fewer than 18% stated losing concentration. Overall, this teaching method received positive feedback, with 82.2% of respondents acknowledging its motivating impact. In addition, a large percentage (71.1%) of the students confirmed the applicability of the knowledge and skills from the workshop for their further studies.

The section titled “Social Area” focused on assessing group cohesion, communication, presentation skills, and task completion. University students, who are experienced in collaborative work, showed strong group cohesion, as confirmed by 71.1% of respondents. When it came to expressing their ideas, most students faced minimal challenges, with 62.2% reporting that they felt comfortable sharing their thoughts, and only 20% experiencing slight difficulties. Additionally, the completion of group tasks was viewed positively, with 71.1% of students stating that they achieved their goals without issues, while 26.7% reported encountering minor difficulties.

Effective communication skills are crucial for university students as they enhance academic performance and prepare them for future careers. According to Pondelíková (2020), assertive communication respects personal dignity, encourages the expression of diverse opinions, and avoids harmful language (Pondelíková, 2020). During the workshops, most participants experienced no communication barriers, with 68.9% of students confirming this, and only 15.6% reporting minor difficulties.

For university students, cultivating presentation proficiency is important, as it enables them to express their ideas with clarity and conviction. Mastering this art involves organizing content logically, engaging the audience persuasively, and using visual aids to enhance understanding. By developing these skills, students not only excel academically but also equip themselves for the professional world, where clear and persuasive communication is a cornerstone of success. The ChatGPT workshop serves as an excellent event for enhancing these skills by providing students with valuable opportunities to analyze their target audience, customize presentation content, incorporate relevant and meaningful information (particularly in the context of English for Specific Purposes), organize and structure the text effectively, demonstrate language proficiency, utilize visual aids (including various presentation programs), rehearse their delivery, engage the audience, and obtain valuable feedback. It is noteworthy that while a significant majority of participants (65%) reported minimal difficulties, a small percentage (5%) identified presentation skills as their primary challenge.

The fourth section “Recommendations for Practical Educational Processes” provided feedback on the “Writing Texts Workshop with ChatGPT” as an effective teaching method for enhancing skills in drafting academic texts. This approach was recommended by 82% of the respondents (Figure 1). We also investigated students’ perceptions of this workshop as a teaching method for other academic subjects, with 80% considering it suitable (Figure 2). Additionally, the majority of participants (66.7%) found the workshop inspiring for designing tasks related to school assignments, while 24.4% found it somewhat helpful. Regarding group discussions during the workshop, 53.3% of students felt that listening to classmates’ thoughts and ideas enriched their knowledge, 31.1% felt partially enriched, and 15.5% saw no benefit in this area (Figure 3).

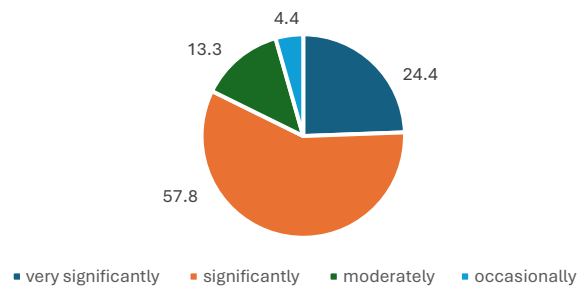


Fig. 1 Implementing the workshop as a teaching method to enhance skills in drafting academic texts

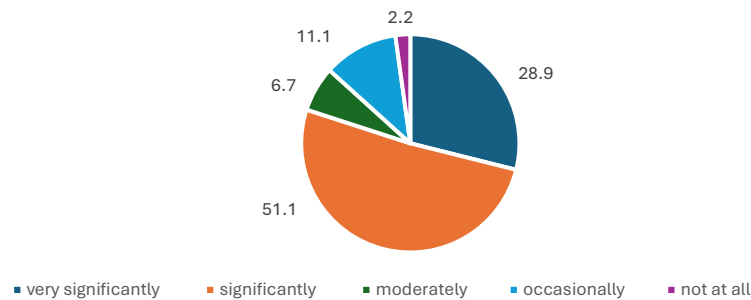


Fig. 2 Implementing the workshop as a teaching method for various academic subjects

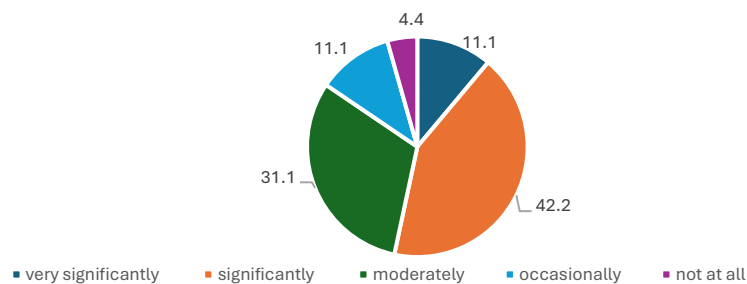


Fig. 3 Gaining enrichment through listening to classmates' thoughts and ideas

The final section of the questionnaire examined participants' knowledge, attitudes, and practical use of ChatGPT. Before the workshop, 75.6% of the students were familiar with this AI tool. Additionally, 80% recognized the importance of incorporating a workshop on ChatGPT into university teaching. More than 70% of the participants clearly identified the challenges associated with using ChatGPT in education, while the remaining 30% partially understood these issues. The ethical principles governing the use of AI tools are essential for addressing the complexities and challenges these technologies present. As AI continues to evolve and become more integrated into various aspects of society, establishing ethical guidelines is crucial to ensure responsible use and mitigate potential harms. Governments

and organizations are developing mechanisms to make high-level AI ethics frameworks more actionable. Governance, regulation, and legal frameworks related to the development and use of AI systems and associated technologies are emerging in many countries (Stahl, 2021). The EU has proposed a legal framework for AI in its member states through *The EU Artificial Intelligence Act* (AI Act, 2024). Universities are also formulating rules for the use of AI. With the increasing use of AI, the need for ethical guidelines becomes more critical. The research revealed that 62.2% of students are fully aware of these ethical principles, 26.7% have partial awareness, and 11.1% are only occasionally aware (Figure 4). The research also confirmed that students (80%) understand the limitations of the information provided by ChatGPT.

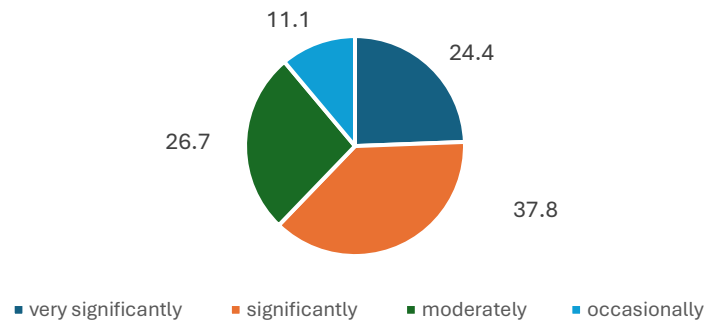


Fig. 4 Identification of ethical principles of AI usage recognized by students

Furthermore, this study revealed that 62.2% of students feel confident using ChatGPT, while 26.7% expressed occasional uncertainty about the application. Meanwhile, 60% of students are comfortable using ChatGPT overall. Regarding content generated by ChatGPT, 57.7% feel comfortable using it, as they do not perceive it as unethical. In contrast, 31.1% experience a slight ethical dilemma, and 11.1% strongly believe it is unethical, expressing significant discomfort with using ChatGPT content. This is closely connected to concerns about trust in the content produced by ChatGPT. Trust is considered a fundamental aspect of AI. In April 2019, the European Commission's High-Level Expert Group on Artificial Intelligence (AI HLEG) published the Ethics Guidelines for Trustworthy AI. These guidelines emphasize that people can fully and confidently benefit from AI only if they trust it. The guidelines advocate for the development of "Trustworthy AI", which prioritizes a human-centric approach and highlights two main components: (1) respect for fundamental rights, regulations, and core principles and values to ensure an "ethical purpose", and (2) technical robustness and reliability to prevent unintended harm due to a lack of technological expertise (EU Commission, 2019). According to these guidelines, "Trustworthy AI" is ethical, lawful, and robust (ibid.). We investigated whether our students trust the content generated by ChatGPT. The results revealed that 17.7% of students trust this content significantly or very significantly, 46.7% have a moderate level of trust in ChatGPT, and 35.5% do not trust ChatGPT-generated content at all or only occasionally (Figure 5). Additionally, we explored students' attitudes toward the potential negative impact of ChatGPT's development. The research indicated that 44.2% of students have significant or very significant concerns, 37.8% have moderate fear, and 20% are not worried or only slightly concerned.

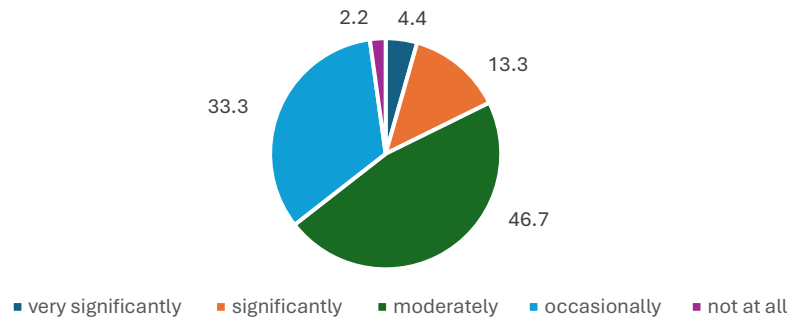


Fig. 5 Trust in content generated by ChatGPT

The core focus of this research is the practical application of ChatGPT and the assessment of student progress following the completion of a workshop. For 46.7% of students using ChatGPT is natural and intuitive, while 31.1% do not share these feelings. ChatGPT significantly or very significantly enhanced productivity in completing school assignments for 46.7% of students, with an additional 20% reporting a slight improvement in their performance. Students also reported that ChatGPT and similar tools help enrich their vocabulary. One-third of the workshop participants who regularly use ChatGPT noticed a significant or very significant improvement in their vocabulary, while 26.7% experienced slight improvement, and the remaining 35.6% reported little or no progress in this area (Figure 6). Similar improvements were noted in stylistic skills, but grammar enhancements were less evident, with only 20% of students reporting any change. These findings support our first hypothesis (**H1**).

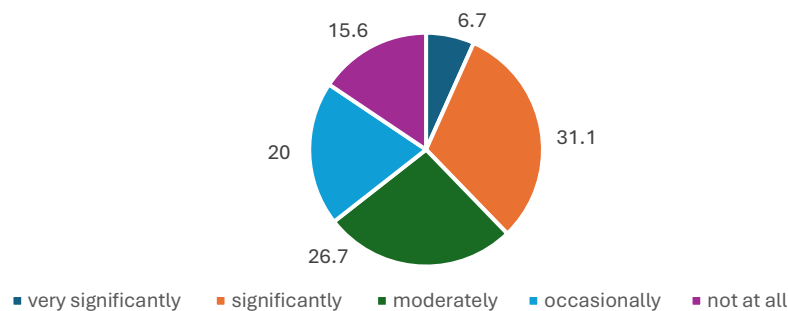


Fig. 6 Improvement in vocabulary caused by using ChatGPT

Artificial intelligence has been designed to reduce time and costs in education (Johnston, 2024). By integrating AI into educational systems, the aim is to make learning more accessible and affordable while enhancing the overall experience. AI accomplishes these objectives by automating tasks, customizing learning experiences, and offering instant support. According to the research, 46.6% of respondents reported that ChatGPT significantly reduces the time required to prepare school assignments, while 37.4% noted a decrease in their educational costs (e.g., book purchases, study materials, access to open educational resources, language learning support, etc.). Additionally, 28.9% of respondents said they can respond more flexibly to

changes. We also investigated whether using ChatGPT could enhance knowledge in academic subjects. Only 22% of students reported significant improvement, while 42.2% noted a mild improvement, and 35.5% experienced little or no change (Figure 7). The use of AI tools like ChatGPT, Tlooto, Perplexity, or Gemini in academic writing has raised questions about the necessity of writing theses. Our research aimed to capture students' opinions on this matter, and as anticipated, more than one-third (42.2%) of students expressed that they find writing final theses unnecessary (Figure 8). These findings support our second hypothesis (**H2**). Teachers propose shorter, research-oriented studies, or replace the current format of theses with a theoretical-practical state examination, on the contrary, some call for the complete cancellation of thesis writing (Pondelíková, 2025).

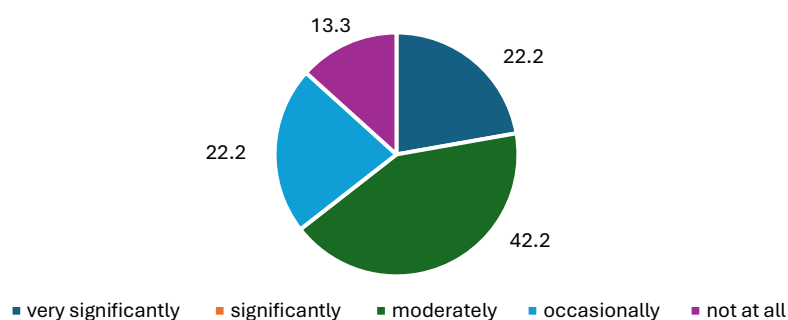


Fig. 7 Improving knowledge of academic subjects caused by using ChatGPT

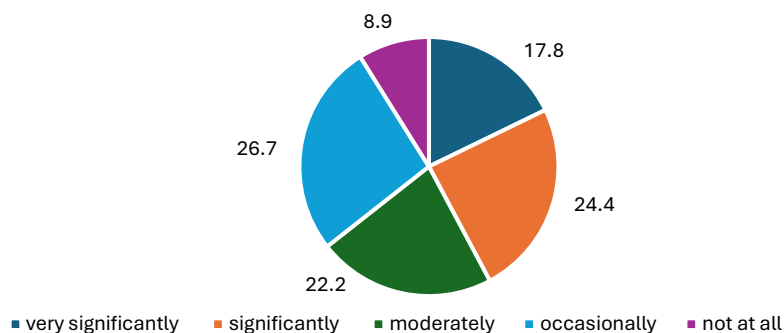


Fig. 8 Importance of writing theses

Incorporating the “Writing Texts Workshop with ChatGPT” into the educational system offers numerous benefits, including teaching students to read with comprehension, think critically, and enhance their English language skills within the English Language and Culture in Specialized Communication study program. This innovative approach to traditional education has gained substantial support from teachers who acknowledge its effectiveness and transformative impact on student progress. Integrating this workshop into the educational process supports communication in a foreign language as well as knowledge-sharing between students and teachers. As evident from the research, students found the workshop motivating, felt inspired, and enriched by actively engaging with their peers. Our goal was to teach students to use ChatGPT wisely as it presents a promising path forward in education.

6. CONCLUSION

The research highlights the transformative potential of ChatGPT in enhancing specialized communication skills among Generation Z students of English for Specific Purposes (ESP). The findings demonstrate that integrating ChatGPT into educational practices not only motivates students but also significantly enhances their performance and communication abilities. Students reported improvements in vocabulary acquisition and stylistic skills, though the impact on grammar was less pronounced.

Moreover, the “Writing Texts Workshop with ChatGPT” has proven to be a valuable educational tool that can be successfully integrated into ESP classes. By incorporating this workshop into the ESP curriculum, educators can provide students with hands-on experience in leveraging AI tools for academic writing, professional communication, and content creation customized to specialized fields. The structured activities within the workshop, such as brainstorming, role assignment, research synthesis, and peer evaluation, foster an engaging learning environment that aligns with the needs of ESP students.

One of the most significant contributions of the workshop is its potential to enhance students’ writing skills. Through AI-assisted feedback, students can refine their sentence structure, expand their vocabulary, and improve overall text coherence. Additionally, exposure to AI-generated suggestions encourages critical thinking, as students must assess and modify the content to align with academic standards and professional communication norms. The iterative nature of AI-assisted writing fosters a deeper understanding of language nuances, promoting autonomous learning and self-correction.

The study underscores the importance of balancing AI tools with traditional pedagogical methods to foster critical thinking, group cohesion, and ethical awareness. While the majority of participants recognized the practical benefits of ChatGPT in their academic endeavours, they also expressed concerns about the ethical implications and trustworthiness of AI-generated content. The data emphasize the necessity for ongoing ethical education and the responsible use of AI in academia.

This research confirms the potential of AI-driven workshops, like “Writing Texts with ChatGPT,” to enrich educational experiences by fostering creativity, collaboration, and effective communication in specialized contexts. The results advocate for the integration of such workshops in broader academic curricula, ensuring that students are well-equipped to navigate the evolving digital landscape while maintaining critical academic standards. Future research should continue exploring hybrid approaches that seamlessly integrate AI with human-led instruction to optimize learning outcomes.

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REFERENCES

- “AI Act”. Shaping Europe’s digital future. 2024. Retrieved from <https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai>
- “Artificial Intelligence in Education: UNESCO Advances Key Competencies for Teachers and Learners.” *UNESCO*. 2025. Retrieved from <https://www.unesco.org/en/articles/artificial-intelligence-education-unesco-advances-key-competencies-teachers-and-learners>

- “ChatGPT Used by Teachers More Than Students: New Survey.” *Walton Family Foundation*. 2024. Retrieved from <https://www.waltonfamilyfoundation.org/chatgpt-used-by-teachers-more-than-students-new-survey-from-walton-family-foundation-finds>
- “Ethics guidelines for trustworthy AI”. *Shaping Europe’s digital future*. 2019. Retrieved from <https://digital-strategy.ec.europa.eu/en/library/ethics-guidelines-trustworthy-ai>
- “International Day of Education 2025 global event in Paris - Artificial Intelligence and education: Preserving human agency in a world of automation.” *UNESCO*. 2025. Retrieved from <https://www.unesco.org/en/articles/international-day-education-2025-global-event-paris-artificial-intelligence-and-education>
- “UNESCO dedicates the International Day of Education 2025 to Artificial Intelligence.” *UNESCO*. 2025. Retrieved from <https://www.unesco.org/en/articles/unesco-dedicates-international-day-education-2025-artificial-intelligence>
- “UNESCO’s AI Competency Frameworks: Equipping Educators and Students for the Age of AI.” *UNESCO*. 2024. Retrieved from <https://ai4edu.eu/2024/11/12/unescos-ai-competency-frameworks-equipping-educators-and-students-for-the-age-of-ai/>
- “UNESCO’s International Education Day 2025: Embracing the Future of Artificial Intelligence in Education.” *UNESCO*. 2025. Retrieved from <https://news.fundsforngos.org/2025/01/22/unescos-international-education-day-2025-embracing-the-future-of-artificial-intelligence-in-education/>
- Ali, O. – Murray, P. A. – Momin, M. – Dwivedi, Y. K. – Malik, T. 2024. “The effects of artificial intelligence applications in educational settings: Challenges and strategies.” *Technological Forecasting and Social Change*, Vol. 199, 123076. Retrieved from <https://doi.org/10.1016/j.techfore.2023.123076>
- Badizadegan, D. “Design Thinking for Musicians: An Introduction.” Retrieved from <https://medium.com/swlh/design-thinking-for-musicians-an-introduction-fe8451f6b8fe>
- Blodgett, S. – Madaio, M. “Risks of AI Foundation Models in Education.” *ArXiv*. Retrieved from <https://arxiv.org/abs/2110.10024>
- Bohušová, Z. “The cognition of interpreting and neutralization.” *Voprosy kognitivnoj lingvistiki = Issues of Cognitive Linguistics*, Vol. 13, No. 4, Tambov: Rossijskaja asociacija lingvistov-kognitologov. 2017.
- Brooks, C. “Incorporating Design Thinking in the Study of Literature.” *Edutopia*. Retrieved from <https://www.edutopia.org/article/incorporating-design-thinking-study-literature/>
- Brown, T. “Design Thinking. Harvard Business Review.” Retrieved from <https://hbr.org/2008/06/design-thinking>
- Carr, L. T. “The strengths and weaknesses of quantitative and qualitative research: What method for nursing?” *Journal of advanced nursing*, Vol. 20/4, pp. 716 – 721. 1994. Retrieved from <https://doi.org/10.1046/j.1365-2648.1994.20040716.x>
- Castro, F. et al. “A Methodology for Conducting Integrative Mixed Methods Research and Data Analyses” *Journal of Mixed Methods Research*, Vol. 4, No. 4, pp. 342 – 360. 2010. Retrieved from <https://doi.org/10.1177/155868981038291>
- Chmelíková, G. – Hurajová, L. “ESP teachers in the world of globalisation and higher education internationalisation.” *The journal of teaching English for specific and academic purposes*, Vol. 7, No. 4, pp. 443 – 452. Retrieved from <https://doi.org/10.22190/JTESAP1904443C>
- Creely, E. “The possibilities, limitations, and dangers of generative AI in language learning and literacy practices.” Retrieved from https://www.researchgate.net/publication/375558249_The_possibilities_limitations_and_dangers_of_generative_AI_in_language_learning_and_literacy_practices
- Dančišinová, L. – Kozárová, I. “Globalizácia, kultúra, interkultúrna komunikácia a kultúrna inteligencia vo vzájomných súvislostiach: dosahy pre interkultúrny manažment. Prešov: Vydavateľstvo prešovskej univerzity.” Prešov: Vydavateľstvo prešovskej univerzity. 2021.
- Dančišinová, L. “Culture c Intercultural Communication: ESP & Academic Discourse.” Prešov: Vydavateľstvo prešovskej univerzity. 2022.
- Denscombe, M. “The Good Research Guide: for small-scale social research”. Maidenhead: McGraw Hill, 2010.
- Generale, C., et al. “Meta Artificial Intelligence Literacy of University Students: A Comparative Analysis.” *International Journal of Multidisciplinary Studies in Higher Education*, Vol. 2, No. 1, pp. 1 – 10. Retrieved from doi:10.70847/588571
- Gerlich, M. “AI Tools in Society: Impacts on Cognitive Offloading and the Future of Critical Thinking.” *Societies*, Vol. 15, No. 1, Retrieved from <https://doi.org/10.3390/soc15010006>
- Hassan, B. “AI in Higher Education: Balancing Pedagogical Benefits and Ethical Challenges.” *Science Step Journal*, Vol. 2, No. 5, pp. 1 – 22. Retrieved from [10.6084/m9.figshare.26349289](https://doi.org/10.6084/m9.figshare.26349289)
- Henderson, A. “7 characteristics of Gen Z in 2023.” *GWJ*. Retrieved from <https://blog.gwi.com/marketing/generation-z-characteristics/>
- Henriksen, D. – Richardson, C. – Mehta, R. “Design thinking: A creative approach to educational problems of practice.” *Thinking Skills and Creativity*, Vol. 26, pp.140 –153. 2017. Retrieved from <https://doi.org/10.1016/j.tsc.2017.10.001>

- Horowitz, E. "What is Design Thinking anyways?" 2016. Retrieved from <https://medium.com/wharton-innovation-design/what-is-design-thinking-anyways-c59428031331>
- Huang, L. "Ethics of Artificial Intelligence in Education: Student Privacy and Data Protection." *Science Insights Education Frontiers*, Vol. 16, No. 2, pp. 2577 – 2587. 2023. Retrieved from <https://doi.org/10.15354/sief.23.re202>
- Hurajová, E. – Chmelíková, G. – Lupřichová, J. "Teachers' interdisciplinary cooperation triggers students' transferable competencies and intensifies the process of internationalisation of Higher Education." *20th International Conference on Emerging eLearning Technologies and Applications (ICETA)*. Starý Smokovec: Slovakia. pp. 243 – 249. 2022. Retrieved from 10.1109/ICETA57911.2022.9974622
- Ismail, I. – Alosli, J. "Data Privacy in AI- Driven Education: An In-Depth Exploration Into the Data Privacy Concerns and Potential Solutions." *AI Applications and Strategies in Teacher Education*. 2025. Retrieved from 10.4018/979-8-3693-5443-8.ch008
- Javorčíková, J. – Badinská, M. "Reading and Critical Thinking Skills of Undergraduate Students: A Quantitative Analysis". *The Journal of Teaching English for Specific and Academic Purposes*, Vol. 9, No. 4, pp. 655 – 666. Niš: University of Niš. 2021. Retrieved from <https://doi.org/10.22190/JTESAP2104655J>
- Johnston, J. "Democratizing education: Harnessing AI to break down financial barriers in higher ed". 2024. Retrieved from <https://www.ecampusnews.com/teaching-learning/2024/04/25/harnessing-ai-financial-barriers-higher-ed/>
- Lupřichová, J. – Hurajová, E. – Kováčiková, E. "CLIL – Obsahovo a jazykovo integrované vyučovanie na základných a stredných školách." 2020. Nitra: Univerzita Konštantína Filozofa v Nitre.
- Ngo, T. N. – Hastie, D. "Artificial Intelligence for Academic Purposes (AIAP): Integrating AI literacy into an EAP module." *English for Specific Purposes*, Vol. 77, pp. 20 – 38. 2024. Retrieved from <https://doi.org/10.1016/j.esp.2024.09.001>
- Oliveira, S. "O Potencial da Inteligencia Artificial na Aprendizagem Educativa." *Revista ft*. Vol. 28. pp. 40 – 41. 2024. 10.69849/revistaft/ma10202410161040.
- Ondrejko, P. "Úvod do metodológie spoločenskovedného výskumu". Bratislava: Veda, 2007.
- Papadopoulos, D. "Human-Centered Artificial Intelligence in Education: The Critical Role of the Educational Community and the Necessity of Building a Holistic Pedagogical Framework for the Use of HCAI in Education Sector." *Open Journal of Educational Research*, Vol. 1, No. 6, pp. 45 – 56. 2024. Retrieved from <https://ejournals.epublishing.ekt.gr/index.php/openjournal/article/view/36612>
- Patel, H. – Joseph, J. M. "Questionnaire Designing Process: A Review" *Journal of clinical trials*, Vol. 6, No. 2, pp. 1 – 7. 2016. Retrieved from <https://doi.org/10.4172/2167-0870.1000255>
- Pecníková, J. "Digital Identity in the Reflections of Cultural Values". *Budušče v nastojajšom: človečeskoje izmerenje cifrovoj epochi*. Moskva: NIU, 2018.
- Plattner, H. – Meinel, Ch. – Leiffel, L. "Design Thinking. Understand – Improve – Apply". Heidelberg: Springer, 2011.
- Pondelíková, I. "Blended Education for University of 21st Century". Trnava: University of Ss. Cyril and Methodius in Trnava. 2023a.
- Pondelíková, I. "Design Thinking As A "Good Practice" of x-learning" *Edulearn22 : 14th annual International Conference on Education and New Learning Technologies, Palma de Mallorca, 4th – 6th of July, 2022*. Barcelona: IATED, 2022. Retrieved from doi.org/10.21125/edulearn.2022
- Pondelíková, I. "Design Thinking for Specific Purposes: Comparative Study of Design Thinking Technique to Enhance Educational Process for Students of English and Teachers of Various Academic Fields". *The Journal of Teaching English for Specific and Academic Purposes*, Vol. 11, No. 3, Niš: University of Niš. 2023b. pp. 633 – 655. Retrieved from <https://doi.org/10.22190/JTESAP230813049P>
- Pondelíková, I. "Úvod do medzinárodných kultúrnych vzťahov a interkultúrnej komunikácie." Banská Bystrica: Dali-BB. 2020.
- Pondelíková, I. "Enhancing university education in Slovakia. Pioneering AI tools for achieving excellence in the educational process of English language and anglophone cultures." Trnava: University of Ss. Cyril and Methodius in Trnava. 2025.
- Robins, P. "From Design Thinking to Art Thinking with an Open Innovation Perspective – A Case Study of How Art Thinking Rescued a Cultural Institution in Dublin." *Journal of Open Innovation: Technology, Market, and Complexity*, Vol. 4, No. 4, 2018. Retrieved from <https://doi.org/10.3390/joitmc4040057>
- Šeben Zafková, T. "Vyučovanie so štýlom na vysokej škole." Trnava: Univerzita Sv. Cyrila a Metoda v Trnave. 2022.
- Sinkus, T. – Ozola, I. "Engineering Student Perceptions of AI Technology Implementation in ESP." *Engineering for rural Development*, Vol. 23, 2024. Jelgava, Latvia. pp. 390 – 395. ISSN 1691-5976. Retrieved from <https://www.iitf.lbtu.lv/conference/proceedings2024/>
- Siroťová, M. "Efektívne učenie vo vysokoškolskej edukácii." Trnava: Univerzita Sv. Cyrila a Metoda v Trnave. 2022.
- Sperling, R. "Design Thinking in the Second Language Classroom." *CASLT*. 2022. Retrieved from <https://www.caslt.org/en/blog-design-thinking/>
- Stahl, B. C. et al. "Organisational responses to the ethical issues of artificial intelligence." *AI & Society*, Vol. 37, pp. 23 – 37. 2022. Retrieved from <https://doi.org/10.1007/s00146-021-01148-6>

- Welnitzová, K. "Chybovost' strojového překladu." Praha: Verbum. 2023.
- Zaghlool, Z. D. – Khasawneh, M. A. S. "Incorporating the Impacts and Limitations of AI-Driven Feedback, Evaluation, and Real-Time Conversation Tools in Foreign Language Learning". *Migration Letters*, Vol. 20, No. 7, pp. 1071 – 83. 2023. Retrieved from doi:10.59670/ml.v20i7.4863
- Zhang, Z. "Advancements and challenges in AI-driven language technologies: From natural language processing to language acquisition." *Applied and Computational Engineering*. Vol. 57, pp. 146 – 152. 2024. Retrieved from 10.54254/2755-2721/57/20241325