



Отношение студентов и преподавателей к интеграции технологий искусственного интеллекта в проектное обучение

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АННОТАЦИЯ

Введение. Генеративный искусственный интеллект (ГИИ) открывает новые возможности для изучения иностранных языков, однако его массовое внедрение в академическую среду опережает научное обоснование его осмысленного использования в контексте конкретных педагогических технологий. Наиболее остро этот разрыв проявляется в проектном обучении на английском языке, где взаимодействие студентов и преподавателей с инструментами ГИИ остаётся малоизученным.

Цель статьи – изучить опыт и отношение студентов и преподавателей вуза к применению ГИИ в проектном обучении на английском языке.

Методы исследования. Для сбора данных использовались онлайн-опросы, адресованные студентам и преподавателям английского языка, а также ранговый анализ полученных результатов, позволивший сравнить и сопоставить представления о применении ГИИ в проектном обучении. В 2025 году в исследовании приняли участие 894 студента первого курса бакалавриата и 56 преподавателей Тюменского государственного университета (Российская Федерация).

Результаты исследования. Полученные данные свидетельствуют в целом о позитивном отношении основных субъектов образовательного процесса к интеграции ГИИ в проектное обучение на английском языке. Более половины студентов (59,6%) и преподавателей (62,9%) признали, что использование ГИИ при работе над проектом способствует экономии времени и позволяет создать более качественный продукт. Вместе с тем мнения преподавателей расходятся с реальным опытом использования ГИИ, о котором сообщают студенты. 92,1% студентов не склонны безоговорочно доверять результатам, генерируемым ГИИ, и предпочитают корректировать его выводы, рассматривая технологию прежде всего как инструмент для генерации идей и совершенствования проектов. Преподаватели же склонны преувеличивать степень зависимости студентов от ГИИ. 78,3% преподавателей подтверждают, что студенты перерабатывают ответы ГИИ, 21,7% преподавателей подчеркивают полное доверие студентов к ГИИ и зависимость от него, что порождает мнения относительно потенциальных рисков для развития критического мышления и креативности.

Заключение. Несмотря на перспективность использования ГИИ в проектном обучении для поддержки языкового и когнитивного развития, его интеграция требует взвешенного и комплексного подхода. В частности, необходимо изучать опыт студентов, выявлять преимущества и риски, связанные с применением инструментов ГИИ, а также учитывать отношение всех заинтересованных сторон в сфере образования прежде, чем приступать к пересмотру и модернизации проектной деятельности в условиях быстро меняющегося технологического ландшафта.

КЛЮЧЕВЫЕ СЛОВА

генеративный искусственный интеллект, проектное обучение, высшее образование, преподавание английского языка, представления студентов и преподавателей

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Students' and Educators' Perceptions of the Use of AI Technologies in Project-Based Learning

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ABSTRACT

Introduction. Generative artificial intelligence (GenAI) opens up new opportunities for learning foreign languages, but its widespread adoption in academic settings is ahead of scientific understanding of its meaningful use within specific pedagogical approaches. This gap is particularly evident in project-based learning (PBL) in English Language Teaching (ELT), where interactions between students and educators using GenAI tools have not been studied enough.

The aim of this research is to analyze students' and educators' experiences and attitudes towards the use of GenAI technologies in PBL in ELT.

Research methods. The study employed creating online surveys for students and educators of English and ranking analysis of the data to compare and contrast the perceptions of GenAI in PBL. A total of 894 first-year undergraduate students and 56 educators from the University of Tyumen (the Russian Federation) participated in the study in 2025.

Results. The study reveals a generally positive attitude among the main participants of the educational process regarding the integration of GenAI into PBL in ELT. More than half of the students (59.6%) and educators (62.9%) agree that the use of GenAI tools in PBL enhances time efficiency and improves the quality of project products. However, educators' opinions contradict real experiences of GenAI use reported by students. Educators tend to overestimate students' trust in GenAI outputs, while the majority of students (92.1%) do not fully trust such outputs and prefer to revise them, viewing GenAI primarily as a tool for generating ideas and improving project outcomes. While 78.3% of educators agree that students critically process GenAI-generated responses, the remaining 21.7% emphasize students' complete trust and reliance on GenAI, which gives rise to concerns regarding potential risks to students' critical thinking and creativity development.

Conclusion. The findings indicate that while GenAI in PBL holds promise for supporting cognitive and linguistic development of students, its successful integration requires a well-balanced and integrated approach. It is essential to study the experiences of students, identify the benefits and risks associated with the use of GenAI tools, as well as attitudes of all stakeholders in education before redesigning PBL in response to an evolving technological landscape.

KEYWORDS

generative artificial intelligence, project-based learning, higher education, English language teaching, students' and educators' perceptions

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INTRODUCTION

In recent years, generative artificial intelligence (GenAI) technologies have had a significant impact on various spheres of life and education is not an exception. GenAI applications which can process large amounts of information and produce knowledge such as ChatGPT have become a valuable resource for educational purposes. However, it is important to carefully consider the ethical and practical aspects of using these technologies, particularly in terms of outcomes they produce, as well as the impact on students, educators, and society as a whole. To support education systems in adapting to these technological advancements, in 2024 the United Nations Educational, Scientific and Cultural Organization (UNESCO) has published the first global guidance "Guidance for generative AI in education and research" [1]. The Guidance provides key recommendations for integrating GenAI tools into teaching environment of educational institutions paying special attention to their ethical use and responsible development. It is highlighted that GenAI should be used in a way that benefits all stakeholders and promotes learning, while addressing potential risks and challenges. In the foreword to the document, Stefania Giannini, Assistant Director-General of Education at UNESCO, emphasizes the importance of using GenAI as "a tool that genuinely benefits and empowers teachers, learners and researchers" [1]. The fifth section of the "Guidance for generative AI in education and research" focuses on facilitating responsible and creative use of GenAI in project-based learning (PBL). This section emphasizes the importance of PBL as a fundamental interactive method that fosters creativity and critical thinking skills. But when GenAI in PBL is "not used purposefully to facilitate higher-order thinking or creativity, GenAI tools tend to encourage plagiarism or shallow 'stochastic parroting' outputs" [1]. To design PBL with beneficial integration of GenAI it is essential to understand how these tools are adopted and perceived by key stakeholders – students and educators. While existing research has analyzed students' and educators' general attitudes towards GenAI in various educational settings, there remains a lack of empirical investigations focusing on stakeholders' perceptions within this specific context. The aim of this research is to analyse students' and educators' experiences and attitudes towards the use of GenAI technologies in PBL in English Language Teaching (ELT).

LITERATURE REVIEW

Recent research has highlighted various areas of GenAI use in education, including students' and educators' perceptions.

For example, the study at Bauman Moscow State Technical University [2] focused on students' social expectations. The findings showed that a significant number of students are highly interested in GenAI and are ready to use these tools. The researchers emphasized that students' digital literacy levels are high enough to adapt to changing academic environments. However, the study revealed that there are students who do not entirely understand the role of GenAI tools in education, paying attention to the need for special training courses.

The research conducted at Tomsk State University [3] focused on students' and educator's perceptions of open-access GenAI tools. The results of the study highlighted a contradiction between students' positive attitudes towards GenAI tools and educators' concerns related to academic dishonesty. Furthermore, the authors noted that there is no consensus among educators themselves about monitoring and detecting the dishonest use of GenAI by students. This fact proves the need for developing regulatory and evaluation frameworks to guide the use of GenAI in academic settings. These findings are quite similar to the data collected by researchers from Moscow City University [4], showing a high level of GenAI popularity among students (81.3%) and greater skepticism about GenAI usage for academic purposes expressed by educators. This difference highlights the necessity of further investigations to better understand how to use effectively GenAI in teaching and learning processes in the digital era and to design guidelines for GenAI implication.

A relevant study conducted by researchers at Kazan Federal University examined students' perceptions of GenAI in language education through online surveys. The study focused on the practical application and future prospects of GenAI [5]. The results indicated that students have a good understanding of the strengths and limitations of these technologies. The researchers also concluded that the integration of GenAI tools into language learning is likely to increase, requiring teachers to prepare for this change.

At Moscow University of Science and Technology the integration of GenAI in academic research among postgraduate students was investigated [6]. The study revealed that, despite widespread adoption, 63% of participants underutilized GenAI tools, limiting their application to a narrow range of tasks. About one-third of respondents use only online translation services. The researchers offered to design new postgraduate foreign language programs with GenAI integration to enhance students' language skills therefore the access to original academic texts. This may lead to more effective research practices and improved scholarly outcomes.

The article published by Aleshkovski and others presents data on how Russian students assess their personal experience with using GenAI in education [7]. The authors highlighted the most popular GenAI functions, and described the level of students' satisfaction with this experience. The survey showed that despite the widespread interest in digital technologies and the use of GenAI, students have an ambiguous attitude towards their use in the learning process.

The question of how GenAI is perceived is not unique to Russian context; it is a recurring theme in the international literature as well. A relevant study focusing on students' use of ChatGPT in the United Arab Emirates (UAE) was presented by Farhi and other researchers [8]. They indicated that students perceive ChatGPT as a revolutionary technology that can assist them in many ways, but has both beneficial and concerning effects.

Argie and Rivika [9] in their research among English teachers proved that GenAI has positively impacted the teaching process in terms of productivity and efficiency. However, teachers are concerned about students' overdependence on GenAI and the loss of human touch and authenticity. The researchers recommended to establish guidelines and policies to promote responsible use of GenAI tools and digital literacy among teachers, students and other stakeholders. These findings are consistent with those of Govindarajan & Christuraj [10], who agree that GenAI tools such as ChatGPT have numerous advantages for ELT. However, there are concerns about plagiarism and excessive reliance on GenAI, which can limit creativity and learning outcomes.

Thus, the majority of researchers note a positive attitude among university students and educators towards the use of GenAI for learning. However, educators, while acknowledging potential significance of GenAI in education, express concerns about its possible erosion of traditional pedagogical practices and teacher roles [11; 12]. Notably, both groups largely oppose outright bans on GenAI, instead advocating for regulated integration within educational contexts [13]. Students continue to highly value educators for uniquely human qualities, such as critical thinking, emotional intelligence, and the capacity for socio-emotional interaction, which GenAI cannot currently replicate [14]. Despite recognizing GenAI's growing role, educators and teacher candidates often report a lack of systematic knowledge regarding its pedagogical and methodological applications [15; 16]. This gap persists even as many express readiness to develop relevant digital competencies [17; 18]. Researchers also indicate the importance of educators in shaping students' attitudes towards GenAI technologies, emphasizing the need for targeted professional development to prepare educators for the effective and critical integration of GenAI [19; 20].

A very limited number of studies address the issue of the specific application of GenAI within PBL in ELT. V. Ruiz, S. Rivas and R. Palmero [21] investigated the role of GenAI in PBL analyzing teachers' perceptions and pedagogical implications. Chengbo Zheng and others have presented a co-design study aimed at exploring the potential of students' GenAI usage data as a new assessment tool for PBL [22]. Kellie A. Charles and others in response to the challenges posed by GenAI to traditional evaluation methods in 2023 piloted a new assessment type: a multimedia project-based assessment where the use of GenAI was permitted [23]. Additionally, the study showed the changes of students' attitudes towards the role of GenAI in learning process, including assessment. L. Habibah, I. Ibrohim, and H. Susilo [24] evaluated the impact of AI-assisted project-based learning on students' critical thinking and communication skills. However, the study did not aim to analyse students' or educators' perceptions of GenAI in this specific context.

Thus, the analyzed studies have demonstrated the significance of empirical research on how students and educators perceive GenAI tools to make the integration of these tools into education more efficient and beneficial. However, the existing literature reveals a notable gap in research concerning the use of GenAI in PBL within the context of ELT with respect to students' and educators' perceptions. The present study aims to address this gap. Through the analysis

of selected publications, we have developed a framework for the study, guided by the following research questions:

- 1) Which GenAI tools do students use in project work while learning English, and for what purposes?
- 2) How do students and educators perceive the impact of GenAI use in PBL on fostering students' cognitive and linguistic skills?
- 3) What risks do students and educators associate with the use of GenAI tools in PBL?
- 4) How do the perspectives of students and educators on the above issues compare and contrast?

MATERIALS AND METHODS

This study employed a mixed-methods approach, combining theoretical analysis with empirical investigation to find out students and educators' perceptions of GenAI in higher education, including PBL. The theoretical research included synthesising academic publications on students' and educators' attitudes towards GenAI technologies.

The empirical study included creating online surveys for students and educators of English and ranking analysis of the data to compare and contrast the perceptions of GenAI. Both quantitative and qualitative analysis of the participants' responses were used to assess how GenAI is specifically perceived and utilized in PBL in ELT.

Participants

A total of 894 first-year undergraduate students and 56 educators from the University of Tyumen participated in the study in 2025. Participant selection employed a volunteer (convenience) sampling methodology [25]. The students' English proficiency levels ranged from A2 to C1 on the Common European Framework of Reference for Languages (CEFR). The study was conducted in the context of English-language project-based activities, culminating in the "HIVE: Having Ideas and Voices Expressed" Project Festival, a competitive forum for student presentations.

Instrument and Procedure

Data collection was conducted via an anonymous online survey using the Yandex Forms platform (<https://forms.yandex.ru/>). Two questionnaires (one – for students and the other – for educators) to examine different perspectives and experiences related to GenAI integration within PBL were designed. The questionnaire was based on data from preliminary focus-group interviews and the results of similar research. Respondents were asked to select one or more options, or write their own response if it was not listed in the options. Additionally, they could comment on their experience of using GenAI in English-language projects, which helped to better interpret the survey results. The survey was anonymous and all participants were informed about its purpose. The questionnaires for educators and students had similar questions concerning the application of GenAI tools within PBL which enabled comparative analysis of perceptions between students and educators, as well as an evaluation of GenAI integration practices.

RESEARCH RESULTS

1 The Use of GenAI Tools: Varieties and Functions in PBL

The first research question was to identify which GenAI tools were mostly used by students in PBL and for what specific purposes. The empirical findings indicate that the significant majority of students (93,4%) use GenAI tools, particularly various chatbot models (e.g., Giga Chat, ChatGPT, Grok, DeepSeek, Qwen, Yandex Neural Network), to complete diverse tasks in PBL. Regarding the frequency of GenAI use, 42.8% of students report using it occasionally, 25.4% rarely, 21.1% often, and 4.1% always. Only 6.6% never use GenAI for PBL. Although 45.2% of surveyed educators believe students always use it in PBL, only 4.1% confirmed this. Another significant difference is that 13.6% of educators believe students occasionally use GenAI, while 42.8% use it from time to time.

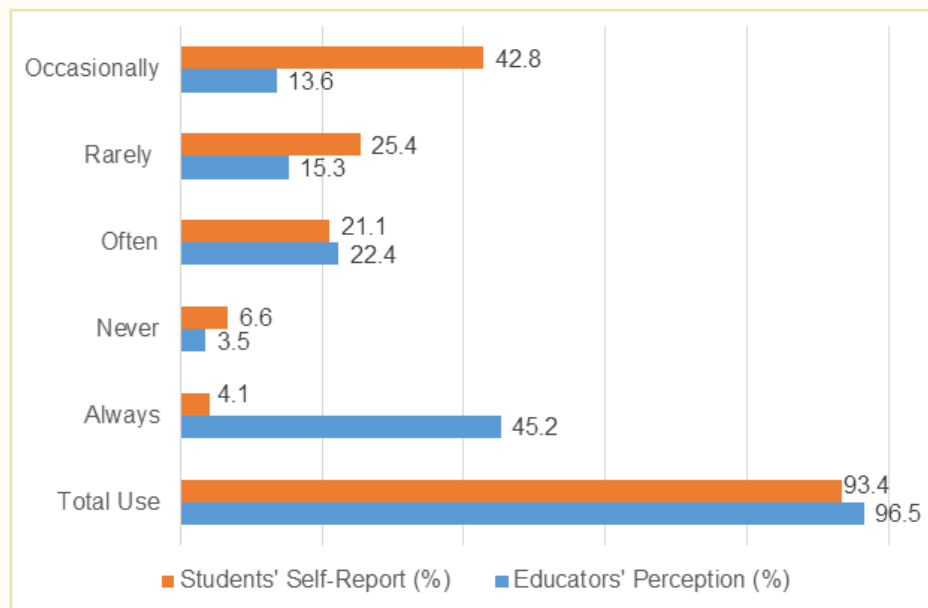


Figure 1 Frequency of GenAI Use in PBL

The participants were also asked to identify all relevant project tasks for which they had used GenAI. The frequency of selection and ranking positions for these tasks are presented in Figure1.

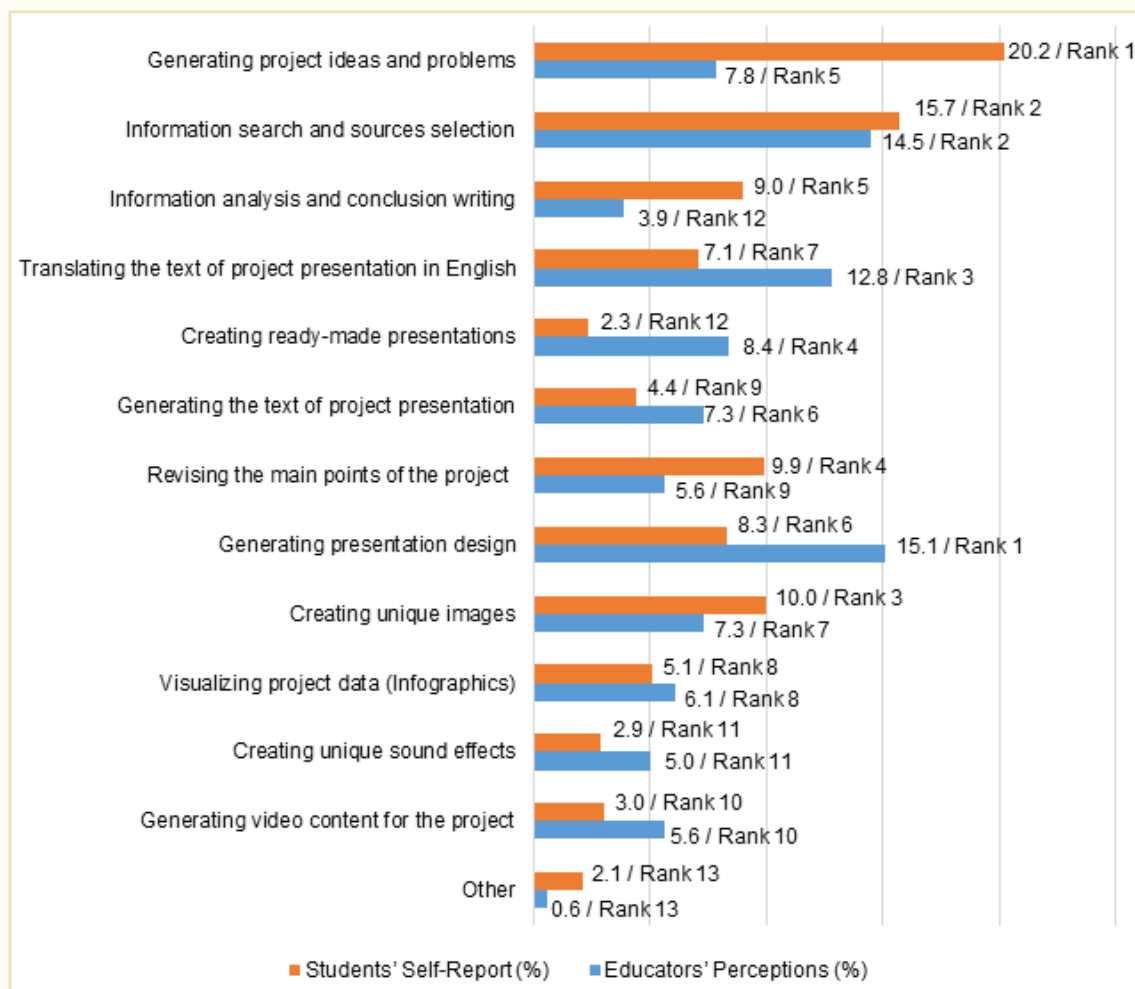


Figure 2 Students' Experiences of GenAI Use in PBL and Educators' Perceptions

Educators primarily associate students' use of GenAI with technical and organizational functions. Their responses highlighted tasks such as generating presentation design (15.1%), information search and sources selection (14.5%), and translation the text of project presentation in English (12.8%). In contrast, student-reported data reveal a more frequent use of GenAI for creative and analytical cognitive processes. The most frequent uses included generating interesting ideas for projects: helping to select ideas for formulating topics, problems, goals, products, and project titles (20.2%); searching for information and selecting sources (15.7%); creating unique images (10%); revising the key points of the project (9.9%); analyzing information and writing project conclusions (9%).

A comparison of the ranked positions for GenAI use revealed complete agreement between students and educators on three tasks: information search and sources selection (Rank 2), creating unique sound effects (Rank 11), and generating video content (Rank 10). The most significant differences in rankings were observed for information analysis and conclusion writing (students' Rank 5 vs. educators' Rank 12) and for creating ready-made presentations (students' Rank 12 vs. educators' Rank 4).

2 Perception of GenAI Impact on Fostering Students' Cognitive and Linguistic Skills

The most significant skills for PBL are considered to be cognitive skills (critical thinking, creative thinking, autonomy) and linguistic skills [26]. To assess the perceptions of GenAI impact on fostering students' cognitive and linguistic skills, the survey asked both groups of respondents a series of questions about the benefits of using GenAI in PBL and how students process information generated by GenAI. The findings revealed similar opinions among students and educators regarding the main advantages of GenAI (Figure 3).

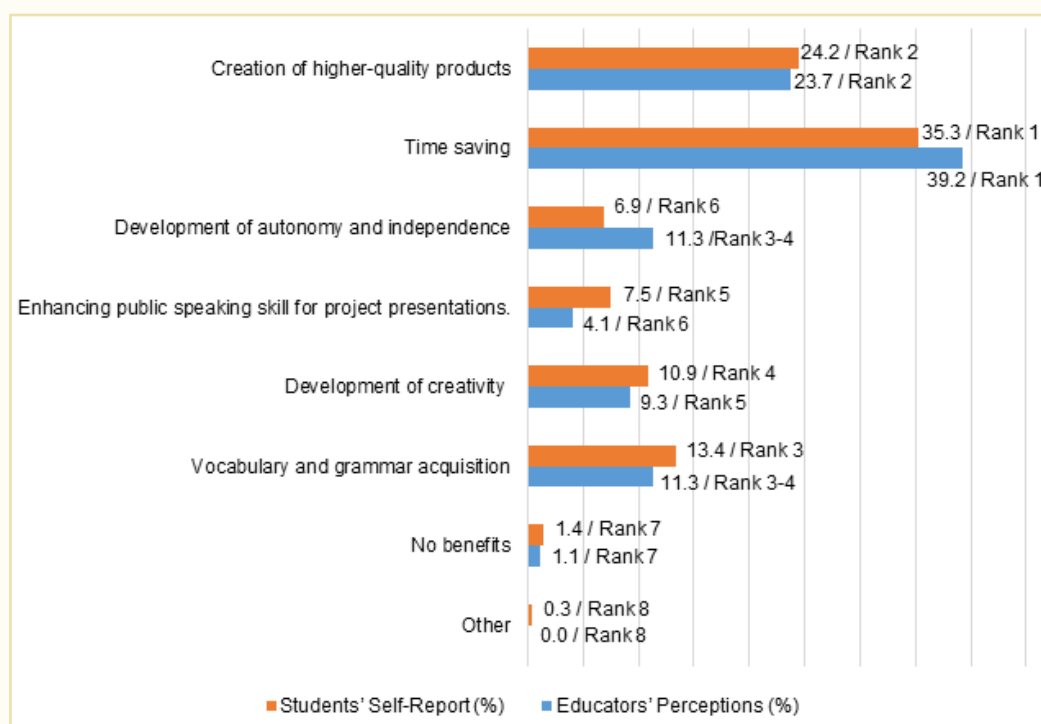


Figure 4 Benefits of GenAI Use in PBL

The majority of students and educators mentioned such core benefits as time savings (39.2% of educators and 35.3% of students) and creation of higher-quality products (23.7% of educators and 24.4% of students). About a quarter of respondents believe that GenAI supports the development of cognitive skills. Specifically, 9.3% of educators and 10.9% of students believe that GenAI fosters creativity. In addition, 11.3% of educators and 6.9% of students report that GenAI has helped to develop student autonomy and independent working skills.

In terms of language skills, the study has shown the following results: 13.4% of students and 11.3% of educators emphasized direct language-related benefits, such as improving language skills through vocabulary and grammar acquisition. 7.5% of students and 4.1% of educators also noted GenAI's role in enhancing public speaking skills for project presentations. Some students also described GenAI as a "valuable assistant during approaching deadlines or when lacking knowledge for project completion. When knowledge gaps occur, it allows us to share responsibility and engage more actively."

To assess critical thinking, participants were asked about the extent to which students revise and process the information generated by GenAI (Figure 5).

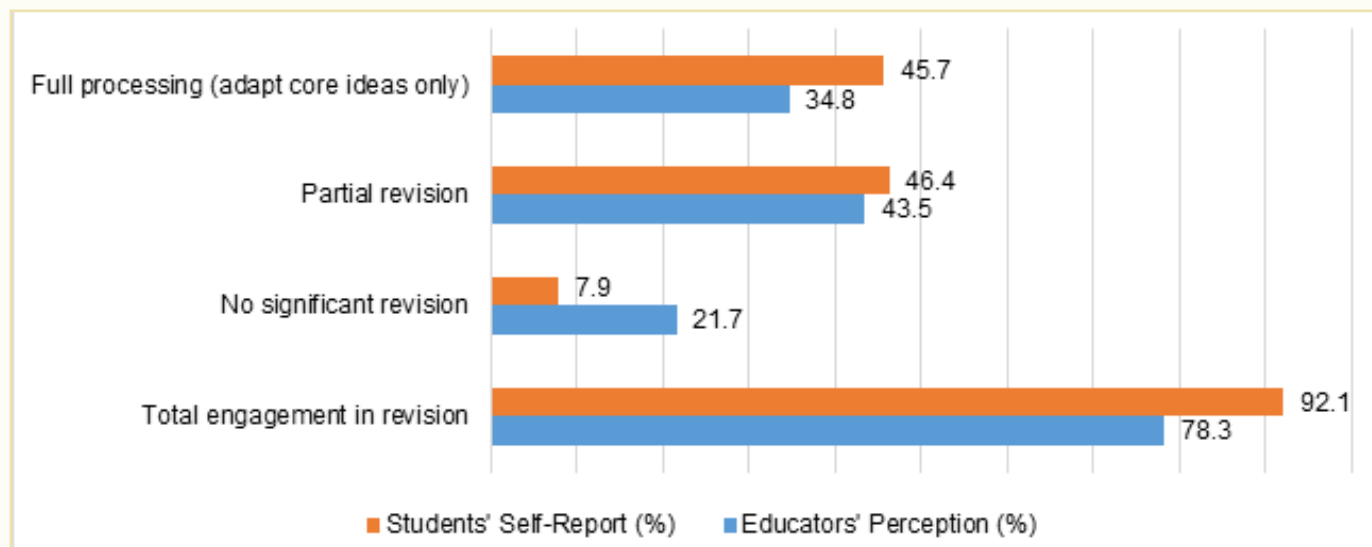


Figure 5 Students' Critical Processing of GenAI-Generated Text Outputs

The data indicates that the vast majority of students (92.1%) engage in some form of revision when using GenAI outputs. Specifically, 46.4% reported partially reworking AI-generated content, while 45.7% indicated they fully process the outputs by adapting only the core ideas. Only 7.9% of students accepted AI outputs without significant revision.

Educators' perceptions showed a similar trend but with notable differences. While 78.3% of educators believed students engage in revision, this figure is 13.8 percentage points lower than student self-reports. Educators were more likely to believe that students accept outputs without revision (21.7% vs 7.9% student report) and less likely to believe students engage in full processing of AI content (34.8% vs 45.7% student report).

3 Risks of GenAI Use in Project Work

The analysis of the risks associated with GenAI tools showed significant differences between students' and educators' perspectives (Figure 6).

Educators expressed significant concerns about GenAI impact on students' cognitive development and motivation. 22.4% of educators believed that GenAI reduces students' motivation to learn and find information independently, 20.3% believe that it negatively impacts critical thinking abilities, and 15.4% are worried that GenAI hinders student creative development.

The most frequent risks pointed by students, however, focused on the quality and authenticity of GenAI output. Students mentioned the unreliability of information given by GenAI (25.2%), the generation of fake references (19.4%), and a recognizably artificial writing or presentation style (11.4%). In contrast to educators' concerns regarding developmental impact, only a quarter of students (25%) believed GenAI negatively affected their own thinking processes and creativity. A smaller number of students (13.4%) acknowledged the risk that it could reduce their motivation for independent learning.

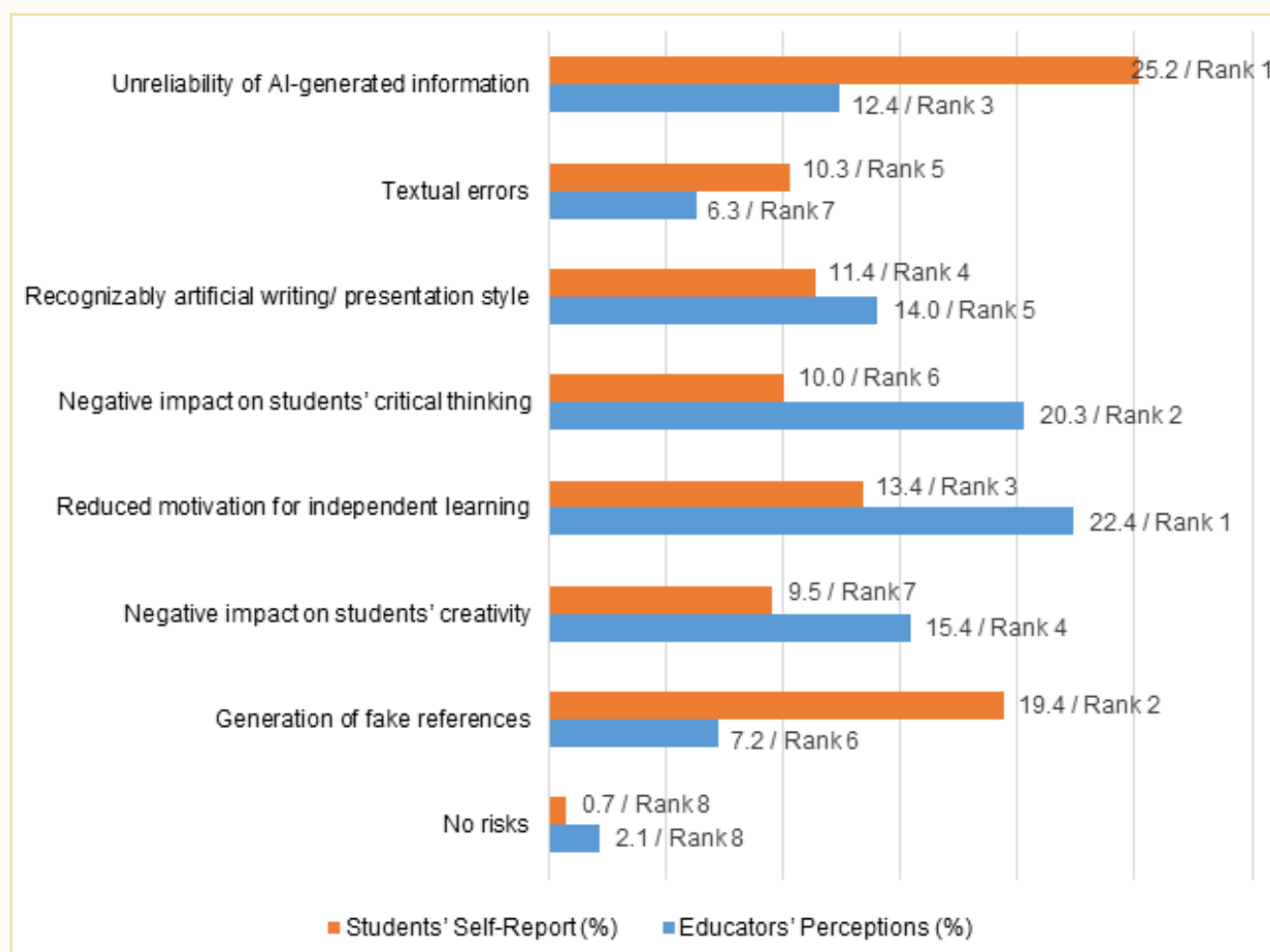


Figure 6 Risks of GenAI Use in PBL

A comparison of the ranked positions for perceived risks revealed substantial differences between students and educators. The most pronounced discrepancies were observed for the negative impact on critical thinking (educators - Rank 2, students - Rank 6), the generation of fake references (educators - Rank 6, students - Rank 2), and the negative impact on students' creativity (educators - Rank 4, students - Rank 7).

This rank-order analysis indicates a fundamental divergence in risk perception: educators predominantly prioritize cognitive and motivational risks to student development, while students express greater concern with technological and organizational risks related to output integrity and practicality. For example, students rank the generation of fake references as a top concern (Rank 2), whereas educators assign it a lower priority (Rank 7). On the contrary, educators perceive the impairment of critical thinking as a more immediate risk (Rank 4) than students do (Rank 6).

A minority of students expressed strong criticism regarding the integration of GenAI into PBL, saying it undermines academic effort and autonomous learning. These students focused on three main aspects. First, students argued that GenAI "completely replaces and devalues student learning effort," reducing their role to just "providing prompts and making corrections which contradicts modern university system aimed at holistic student development." Second, students contended that "GenAI can be useful for assignments in native language, mathematics, or analytical reading, and for writing reports. However, it cannot be used for creating projects, especially in a foreign language. AI cannot teach students a language; it encourages laziness and reduces the desire to learn material independently." Finally, warnings were issued about the risk of dependency, with students cautioning that overuse "can lead to dependence on GenAI for all activities, which would ultimately hinder independent project work."

DISCUSSION

The empirical findings of this study provide significant insights into students' and educators' perceptions and experiences of the use of GenAI tools in PBL in ELT. The results reveal a complex understanding of the specific context of PBL in terms of GenAI usage, including its benefits and possible challenges. Based on the research findings mentioned above, several important aspects of interest for scientific discussion can be identified.

First of all, it is worth noting that educators tend to overestimate students' use of GenAI in PBL. Nearly half of the educators surveyed believe that students always use GenAI tools in PBL, while only 4.1% of students confirmed this opinion. These findings correlate with the conclusions of other researchers. For example, studies by Kazan [5] and French [27] researchers suggest that educators exaggerate the extent to which students rely on GenAI. This fact proves that it is crucial to investigate the experiences and attitudes of all stakeholders before designing new GenAI-supported teaching.

Secondly, the study revealed a fundamental agreement between students and educators on practical necessity of GenAI use, its benefits for PBL in ELT and quality of project outputs. These findings align with earlier studies emphasizing advantages of GenAI use in ELT. For example, the research published by K. Benek [28] revealed generally positive perceptions of GenAI tools among learners, a significant majority of which agreed that these technologies are beneficial for their learning outcomes, including language proficiency. Researchers from Iran also found generally positive perceptions of GenAI tools in ELT among both teachers and learners [29].

Both groups of participants agree on the advantages of GenAI usage regarding time saving, project product quality, enhancing of creativity. However, rank analysis confirms that, while both groups agree on certain applications of GenAI, they prioritize specific tasks differently. Students assign the highest priority to creative and analytical tasks in PBL (generating project ideas and problems, etc.), viewing GenAI as a vital tool for creativity, whereas educators consider GenAI as a tool with mostly technical and organizational functions (generating presentation design, information search and sources selection etc.). This divergence may indicate a discrepancy in educational expectations. Educators are likely to perceive GenAI as a tool to boost students' efficiency in the final stages of a project, such as designing presentations or finding information and translating it. Whereas students see it as a cognitive partner in the initial stages of project work, such as idea generation and information analysis. These findings highlight the necessity for educators to fully understand students' experiences of GenAI usage within project work to design PBL which enhances students' skills and abilities.

In terms of language skills both students and educators emphasized GenAI benefits for their development. The same results were presented in the study by Y. Liunokas, investigating students' perceptions regarding the integration and utilization of GenAI technologies in ELT [30]. The participants recognized GenAI tools effectiveness in improving pronunciation, grammar checking, and vocabulary acquisition. However, concerns emerged regarding AI's limitations in understanding cultural nuances, potential over-dependence on technology, and the irreplaceable value of human interaction in language learning.

The study also revealed a disagreement between students and educators regarding the critical approaches to AI-generated content. The majority of educators tend to overestimate the frequency and scope of students' use of AI-generated content, while student-reported data indicate a more cautious and selective approach, with only 7.9% of students expressing satisfaction with AI-generated content without further revision or verification. 43.5% of educators believe that students frequently revise GenAI outputs, 34.8% indicate occasional revision, and 21.7 % suggest it is rare. At the same time the research showed that 45.7% of students completely revise GenAI outputs and 46.4% partially adapt core ideas. These results show different levels of cognitive engagement and autonomy among student when interacting with GenAI as well as a lack of trust among educators towards students work, which is likely to lead to unfair assessment of students' projects. These research results highlight the necessity for redesigning project work and regulating the integration of GenAI tools in PBL as a systemic process. Different frequency of GenAI usage among students suggests that not all students heavily rely on them in PBL, finding the GenAI outputs unreliable and fake. This fact is supported by previous studies. For example, Lebanese researchers founded that most students do not fully trust AI-generated content and revise it [31].

The rank-order analysis indicates a fundamental divergence in risk perception: educators predominantly prioritize cognitive and motivational risks for student development, while students express greater concern with technological and organizational risks related to output integrity and practicality. Educators believe that GenAI tools reduce students' motivation for independent learning (Rank 3), while students are less concerned about this risk (Rank 1). The same conclusion was made by researchers from Saudi Arabia, whose findings showed that students demonstrated more positive attitudes compared to teachers, viewing GenAI as a motivating tool [32].

Educators more often than students demonstrated concerns about GenAI negative influence on students' creativity and critical thinking as educators overestimate students' reliance on GenAI tools. Over-reliance on GenAI tools is an issue highlighted in H. Lin and Q. Chen's study, which proves that overuse of GenAI can reduce critical thinking and self-initiative among students [33]. These findings confirm the importance of balancing GenAI use with opportunities for independent thought and critical reasoning.

CONCLUSION

The article has analyzed students' and educators' perceptions of GenAI technologies used in PBL in ELT at University of Tyumen. The research has shown a landscape that is characterized by both similarities and significant differences between students and educators. These findings suggest that students generally see GenAI as a tool to improve their outcomes, while educators are more concerned about overdependence on it and its potential to reduce students' autonomy, critical thinking, and creativity. This disparity in opinions might suggest that students generally exhibit greater trust in GenAI, viewing it as a tool to manage project and improve outcomes. Educators, however, appear more cautious, concerned about GenAI potentially diminishing student autonomy and fostering over-reliance, thereby hindering the development of critical thinking and creativity.

In terms of practical applications, the research findings can be used in two possible ways. Firstly, in project work transformation when it is crucial to deeply understand the realities, benefits, and risks while using GenAI tools, as well as attitude of all stakeholders in education. Secondly, the findings can also be used to design faculty development programs, providing educators with the necessary training and resources to use GenAI tools in TEL in an ethical and effective manner. This will ensure that educators are equipped with the skills and knowledge needed to integrate GenAI into their teaching and provide students with a high-quality learning experience.

Future research should focus on a more in-depth study and analysis of the needs and attitudes of all stakeholders in higher education concerning GenAI tool utilization in PBL in ELT. This will provide the development of PBL models that incorporate mechanisms for GenAI integration and process regulation, followed by empirical validation of these models. A pedagogical experiment comparing the academic achievements of students who actively engage with GenAI technologies in PBL with those who do not would be of significant academic interest. Furthermore, a complementary research direction involves the methodological preparation of foreign language educators for integrating GenAI technologies in PBL.

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