THE STUDENTS' AWARENESS CONSIDERING THE ACADEMIC INTEGRITY OF ARTIFICIAL INTELLIGENCE USE IN TERMS OF FOREIGN LANGUAGE ACQUISITION

A CONSCIÊNCIA DOS ESTUDANTES RELATIVAMENTE À INTEGRIDADE ACADÊMICA DA UTILIZAÇÃO DA INTELIGÊNCIA ARTIFICIAL EM TERMOS DE AQUISIÇÃO DE LÍNGUAS ESTRANGEIRAS

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Abstract. The article is devoted to one of the most widely discussed issues and current trends in the educational sphere. It is the use of artificial intelligence technologies by the students of pedagogical specialties, focusing on its pros and cons and highlighting the possible consequences of its use. The authors define the place of artificial intelligence, specifically considering the generative artificial technologies, in terms of foreign language acquisition. The performed study reveals different aspects that arose with the use of the aforementioned technologies, considering the problem of academic integrity and policies that could regulate its ecological use. The presented study aims to reveal students' awareness of the issue of the academic integrity of artificial intelligence use in terms of foreign language acquisitions. The target audience of the study is students of the Faculty of Pedagogical Education of Borys Grinchenko Kyiv Metropolitan University of 013 "Primary Education" and 012 "Preschool Education". The data received from the students of pedagogical specialties via the conducted survey proves that there is an urgent need to expand students' knowledge about artificial intelligence technology and teach them to use it correctly, adhering to academic integrity principles.

Keywords: artificial intelligence; artificial intelligence technologies; academic integrity principles; foreign language acquisition; students

Resumo. O artigo é dedicado a uma das questões mais amplamente discutidas e às tendências actuais no domínio da educação. Trata-se da utilização de tecnologias de inteligência artificial pelos estudantes de especialidades pedagógicas, focando os seus prós e contras e destacando as possíveis consequências da sua utilização. Os autores definem o lugar da inteligência artificial, considerando especificamente as tecnologias artificiais generativas, em termos de aquisição de línguas estrangeiras. O estudo realizado revela diferentes aspectos que surgiram com a utilização das referidas tecnologias, considerando a

problemática da integridade académica e as políticas que poderiam regular a sua utilização ecológica. O estudo apresentado pretende revelar a consciência dos estudantes sobre a questão da integridade académica do uso da inteligência artificial em termos de aquisição de línguas estrangeiras. O público-alvo do estudo é constituído por estudantes da Faculdade de Educação Pedagógica da Universidade Metropolitana de Kiev Borys Grinchenko, dos cursos 013 "Ensino básico" e 012 "Ensino pré-escolar". Os dados recebidos dos estudantes de especialidades pedagógicas através do inquérito realizado provam que existe uma necessidade urgente de expandir os conhecimentos dos estudantes sobre a tecnologia da inteligência artificial e de os ensinar a utilizá-la corretamente, respeitando os princípios da integridade académica.

Palavras-chave: inteligência artificial; tecnologias de inteligência artificial; princípios de integridade académica; aquisição de línguas estrangeiras; estudantes

1. INTRODUCTION

The current state of education in Ukraine is defined by several significant factors. The first, is the covid and post-covid era factors that led to the wide use of distance technologies, the Hy-Flex technology in particular, and the necessity to improve the digital skills of modern teachers that further was intensified by the second factor. The war in Ukraine forced these trends to strengthen and progress even more due to Education 4.0 which involves the integration of technology into the educational process to provide more personalized and interactive learning. Today the advancement in technology and development of intelligent digital technologies such as artificial intelligence (AI) as it was mentioned by Baidoo-Anu and Owusu Ansah (2023) "revolutionize existing educational praxis". Having analyzed the recent studies on the topic of the research, two different approaches to the use of AI in education could be distinguished.

The first group of educators and researchers consider the implementation of AI in education as a powerful tool with the potential to improve the learning process and contribute to both teachers and students. They believe that the benefits outweigh the drawbacks of AI.

The opposite group of educators and researchers consider AI as a potential threat, and they are rather skeptical in terms of its use. While the first group integrates AI into their common teaching routine, the opponents use various ways to stop the aforementioned process, such as banning or creating software that is programmed to detect the use of AI. The main aspect of concern among educators is the problem of academic integrity and plagiarism, which is interconnected with the question of AI authorship and corresponding policies.

Considering the arguments of both viewpoints, the article aims to reflect students' awareness in terms of the important aspects of AI use, which is defined today as academic integrity. Therefore, the literary analysis on the defined topic was performed, and the survey on understanding the students' awareness considering the academic integrity of AI use in terms of foreign language acquisition was held among the students of the Faculty of Pedagogical Education of Borys Grinchenko Kyiv Metropolitan University to investigate the students' familiarity with AI, their attitude and the influence of the use of AI on their academic performance.

2. ANALYSIS OF RECENT RESEARCH AND PUBLICATIONS

Since the issue of the use of AI is debatable, it needs regulation on official levels. The European Commission welcomes the political agreement reached between the European Parliament and the Council on the AI Act (AI Act), proposed by the Commission in 2021. The AI Act introduces dedicated rules for general purpose AI models that will ensure transparency along the value chain. For very powerful models that could pose systemic risks, there will be additional binding obligations related to managing risks and monitoring serious incidents, performing model evaluation and adversarial testing. These new obligations will be operationalised through codes of practices developed by industry, the scientific community,

civil society and other stakeholders together with the Commission (Europe fit for the Digital Age…). Ursula von der Leyen, President of the European Commission, said: "AI is already changing our everyday lives. And this is just the beginning. Used wisely and widely, AI promises huge benefits to our economy and society. Therefore, I very much welcome today's political agreement by the European Parliament and the Council on the AI Act. The EU's AI Act is the first-ever comprehensive legal framework on AI worldwide. So, this is a historic moment. The AI Act transposes European values to a new era. By focusing regulation on identifiable risks, today's agreement will foster responsible innovation in Europe. By guaranteeing the safety and fundamental rights of people and businesses, it will support the development, deployment and take-up of trustworthy AI in the EU. Our AI Act will make a substantial contribution to the development of global rules and principles for human-centric AI" (Commission welcomes political agreement on Artificial Intelligence Act). In spite of the official documents, there are some risks in using AI technology in educational training, for example, the access to scoring of exams.

While being researched for over 50 years, AI is experiencing its booming period due to the development of technology and the increase of data. The term was coined in 1955 by Stanford Professor John McCarthy. There is no single and generally accepted definition of the term since this is a complex notion, which involves much discussion. Nevertheless, the most common interpretation involves explaining the concept of AI as a technology that permits robots to mimic a variety of intricate human abilities (Sheikh et al., 2023). We agree with Sheikh et al. (2023) who explain in their study the lack of specification of such explanation and consider the definition from the High-Level Expert Group on Artificial Intelligence (2019) of the European Commission more appropriate in the conducted study as they define AI as "systems that display intelligent behaviour by analysing their environment and taking actions – with some degree of autonomy – to achieve specific goals". The things that are already available to AI are perceiving, reasoning, learning, interacting with an environment, problem-solving, and even exercising creativity, the last is typically a prerogative feature of the specific type of AI, which is Generative AI.

Aimed at generating new content in various types of Generative AI (GenAI) allows the creation of text, images, or audio from training data (Feuerriegel et al., 2023). The most well-known examples of GenAI are Dall-E, GPT-4, and Copilot.

Today, the use of AI is one of the most researched topics. The performed literary analysis of the recent works revealed scholars' interest in various aspects of its integration into educational space, unlike the evidence of the literary reviews conducted in 2020. Thus, Sharma et al. (2020) conclude in their study that some of the sectors disregard the application of AI in practice and the educational sphere is one of them. Nevertheless, nowadays, research has become more focused on the aforementioned aspect of the use of AI. The rising interest in AI in education is reflected in the 2023 report by the U.S. Department of Education, "Artificial Intelligence and the Future of Teaching and Learning". The document focuses on the support of AI technology in teaching and learning improvement, as well as providing recommendations for the development of proper AI policy (U. S. Department of Education, Office of Educational Technology, 2023).

The major empirical study that offers a thorough analysis of the application of GenAI in the four main areas of education – teaching, learning, assessment, and administration – while taking into account a range of prerequisite skills and results is provided by Chiu (2023). Except for providing suggestions and useful practices, the research offers a wide range of further options to investigate.

Both students' and teachers' perspectives on the use of AI in academic writing at different phases (brainstorming, outlining, writing, revision, feedback, and evaluation) within a framework of acceptability is reflected in Barrett and Pack's study (2023). They conclude the

proper use of GenAI at specific stages of the writing process via the development and establishment of clear policies as well as teachers' and students' training and education on its acceptable use.

Considering the analysis of the development of the proper policies of AI some studies are devoted to peculiar local experiences that solve the problem of its sustainable use. Therefore, Marda (2018) introduces the research that is aimed at improving the current AI policies in India. By doing so, the scholar proves the complexity of technology, which requires cross-disciplinary discussion and serious attention to data-driven decision-making and detailed examination in terms of further policy development.

3. METHODS

While dwelling on the notion of academic integrity, we understand it according to the definition, provided by The International Center for Academic Integrity (ICAI), which interprets it as a commitment to six major values that are honesty, trust, fairness, respect, responsibility, and courage (The fundamental values of academic integrity, 2021). Among the main manifestations of the aforementioned qualities that are taken into consideration while conducting the survey within the presented research are the necessity of giving due credit to the creator, author, or owner of the original piece, following guidelines and procedures respectively as well as institutional rules and codes.

The first rule, which is aimed at ensuring and governing the use of AI as well as the contribution and guidance for the further development of global regulations and principles is the AI Act agreed by The European Union, which was proposed back in 2021 (European Commission 2021 The Artificial Intelligence Act, 2021). The main focus of the document is on the risk levels (unacceptable, high-risk, limited, minimal) of various applications from AI that influence the degree of regulation.

It is worth mentioning that Borys Grinchenko Kyiv Metropolitan University Development Strategy for 2023–2027 outlines strategic touchstones to improve the University's performance as an educational, research, and innovation complex of the capital of Ukraine that promotes comprehensive development of individuals and provides training of highly professional specialists for Kyiv and the whole of Ukraine. The University ensures that research adheres to academic integrity principles (Grinchenko University Development Strategy for 2023–2027, 2023). Therefore, it is relevant to develop students' awareness of academic integrity both in research and education. The above regulation stated the necessity to research the students' awareness, considering the academic integrity of AI use in terms of foreign language acquisition.

The use of theoretical methods of the research such as analysis, synthesis, deduction, and generalization allowed us to study the scientific sources on the problem of research and define the key terms. The next step of the research involved the empirical part of compiling and conducting the survey, with the following analysis of the received data.

The conducted research involved the survey that was performed among the students of the Faculty of Pedagogical Education of Borys Grinchenko Kyiv Metropolitan University that was offered in an online format via Google Forms to the students of pedagogical specialties, 013 "Primary Education" (37) and 012 "Preschool Education" specialty students (30) of the first (bachelor) education level (in total 37 respondents).

The survey consisted of 13 questions that were focused on the analysis of students' awareness and attitude to AI in general, as well as in terms of the topical question of academic integrity in terms of their foreign language acquisition.

The survey design incorporated questions targeting students' understanding and views on academic integrity in the use of AI for language learning, focusing on both general familiarity and ethical concerns. The respondents were selected from two specific pedagogical programs,

ensuring a representative sample across primary and preschool education specialties. This selection and structured question design provide a reliable basis for assessing trends in students' awareness and attitudes toward responsible AI use in education.

It should be mentioned, before starting the research, we've had a strong base of using special technologies in teaching a foreign language (English) to the students of pedagogical specialties (Kosharna & Petryk, 2021; Kosharna & Petryk, 2022; Kosharna et al., 2023a; Kosharna et al., 2023b; Kotenko et al., 2020). Taking into account pedagogical studies of the phenomenon of technologization in education, we consider technologization in a foreign language teacher training as a clearly organized foreign language learning process for future teachers, which is connected with motivational, cognitive and reflexive components in the structure of the model of foreign language training of the future teacher and aimed at a high-quality, stable result in the system (Kosharna et al., 2023b, p. 304). It should be mentioned, that before starting the research, we've had a strong base of using special technologies in teaching a foreign language (English) to the students of pedagogical specialties (Kotenko et al., 2020). Targeted and correct application of the latest educational technologies during foreign language learning affects the motivation of students of pedagogical specialties to master the latter, enables the implementation of the principle of integration in the process of foreign language teacher training, contributes to the formation of foreign language communicative competence (Udovychenko et al., 2021). It was pointed out the following components of the technology: general organization of the learning process, student and teacher activities, diagnostics of the learning process, purpose of use technologies and designing the expected result (Rudnik, 2023). The use of digital tools in the process of increasing foreign language grammatical competence has proven its effectiveness. Communicatively oriented digital and multimedia tasks on a foreign language grammar (English / German) support students' interest and motivation in mastering complex grammatical phenomena (Kosharna et al., 2023c). Knowing and using special technologies will help the students in their future work (Kosharna & Petryk, 2021, p. 50; Kosharna et al., 2023a, p. 69).

4. RESULTS

The first question of the survey was aimed at defining the degree of students' familiarity with GenAI technology and the didactic potential of its use. It revealed that slightly more than half of all the respondents who took part in it are aware of its use and functionality (54.5%). While there are 9.1% of respondents who know 10% or less of the capabilities of GenAI, 27.3% know 20%-30%. Less than 10% of respondents (9.1%), know more than 60%-70% about the advantages of the use of GenAI in their learning process (Figure 1).

The second question of the offered survey allowed to set the frequency of GenAI use among the respondents. The received result revealed that only 9.1% of students use GenAI daily, almost half of the respondents (45.5%) use it weekly, 18.2% – monthly, 27.3% use it several times a year and there are 0% of those who do not use it at all (Figure 2).

The third question revealed an equal number of respondents who are rather eager to attend specific training sessions and workshops devoted to the question of the use of GenAI in learning and future professional activity (45.5%), while half of them do not (45.5%). The other 9.1% are strictly against such courses (Figure 3).

The fourth question concerned the attitude of the GenAI in terms of violating the academic integrity by students. The results proved that the majority of respondents (71.7%) believe that the use of GenAI technology without citing breaks the academic integrity rules set by the university code, while less than 30% (27.3%) consider such behavior acceptable and common practice (Figure 4).

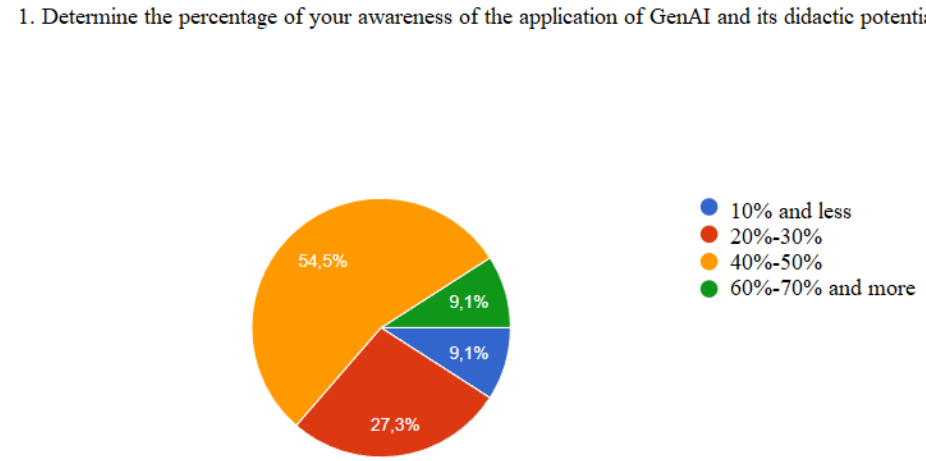

Figure 1. Respondents' answers to the question "Determine the percentage of your awareness of the application of generative artificial intelligence (hereinafter – GenAI) and its didactic potential" Source: compiled by the author

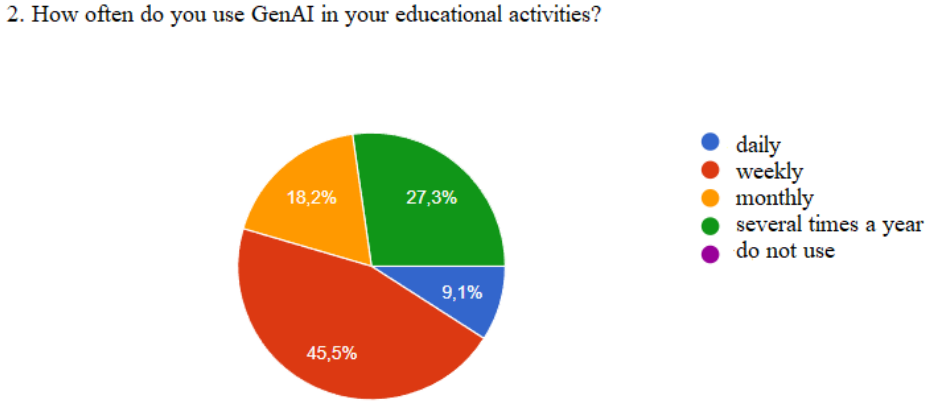

Figure 2. Respondents' answers to the s question "How often do you use GenAI in your educational activities?" Source: compiled by the author

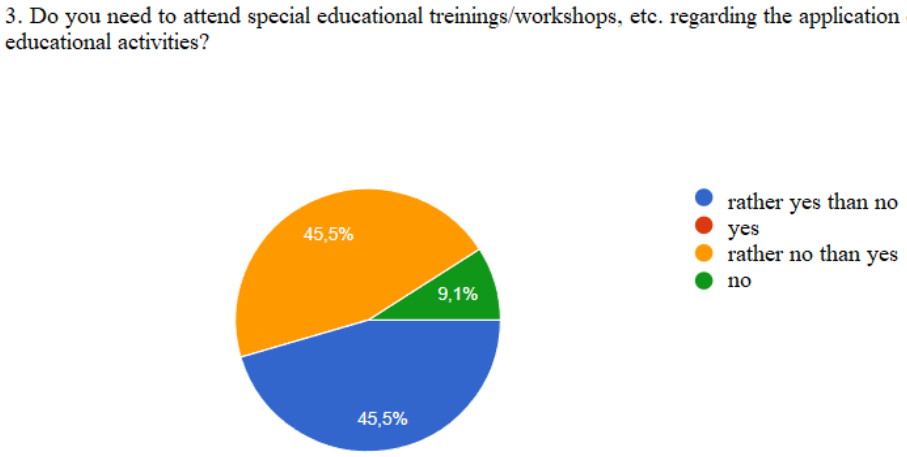

Figure 3. Respondents' answers to the question "Do you need to attend special educational training workshops, etc. regarding the application of Gen AI in your educational activities?" Source: compiled by the author

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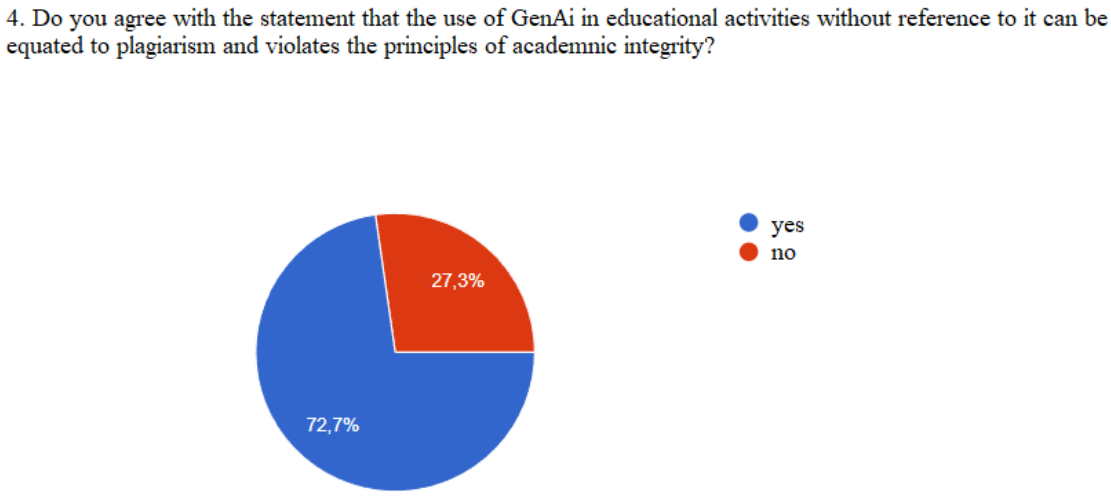

Figure 4. Respondents' answers to the question "Do you agree with the statement that the use of GenAI in educational activities without reference to it can be equated to plagiarism and violates the principles of academic integrity?". Source: compiled by the author

The fifth was an open question and gathered ideas of why the respondents do not violate the academic integrity rules by using the GenAI without proper citation. Among the most popular answers were: the use of it in function of search engines or brainstorming tools, which do not necessarily involve the use of GenAI for performing the complete work or to write only a plan for future work instead of the use of it for the complete essay writing tool.

The sixth question was directed to the category of students who already work as teachers. It revealed that among respondents who work in schools, 50% noticed the use of the GenAI by their pupils. The opposite half did not have such experience.

The seventh question fell within respondents' group mates, and it allowed us to find out that the use of GenAI was known to at least 70% of the students, while the others did not see such evidence or the works at all in general.

To check the familiarity of students with GenAI technology, the eighth open question asked for examples of such tools they could name. The result proved a limit in the variety of GenAI that exists. The most popular answer was Chat-GPT.

To find out the cognitive aspect behind the GenAI, the ninth question asked respondents to distinguish between AI and GenAI and tell if these were identical notions. Thus, 45.5% chose the positive "yes" answer, while 36.4% defined it as a negative one. The left 18.2% had no idea, considering the relationship between the two aforementioned concepts (Figure 5).

The tenth question allowed to state students' awareness of the GenAI use in the educational process. 63.6% of respondents have a rather positive than negative attitude, 27.3% have a strictly positive attitude towards the technology, while the rest 9.1% have a negative perception of the booming technology (Figure 6).

The eleventh question specified the previous question by defining the integration of the GenAI in the foreign language acquisition process and revealed that 45.5% of the respondents name it positive, 27.3% of the respondents consider this process as such that has a potential for the aforementioned sphere, while the other 27.3% consider it as harmful and threatening (Figure 7).

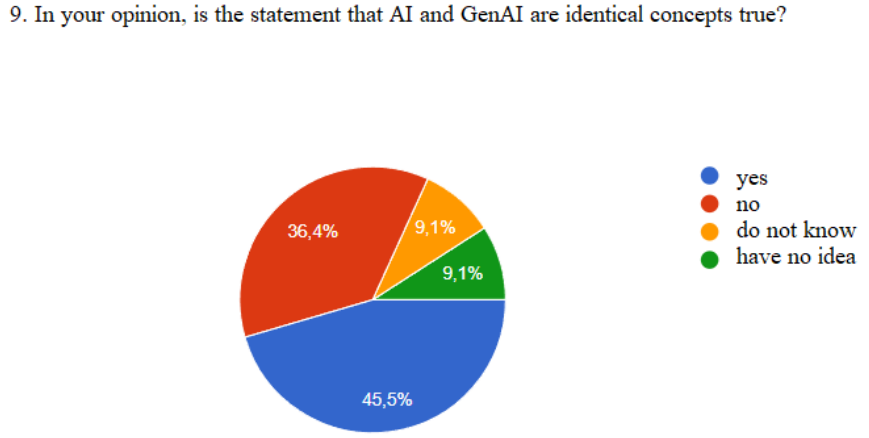

Figure 5. Respondents' answers to the question "Is it true that AI and GenAI are identical concepts?" Source: compiled by the author

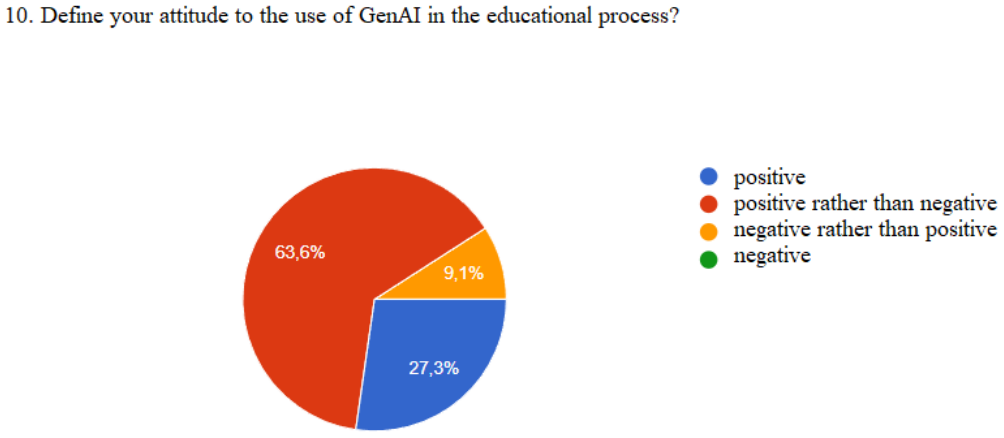

Figure 6. Respondents' answers to the question "Define your attitude to the use of GenAI in the educational process". Source: compiled by the author

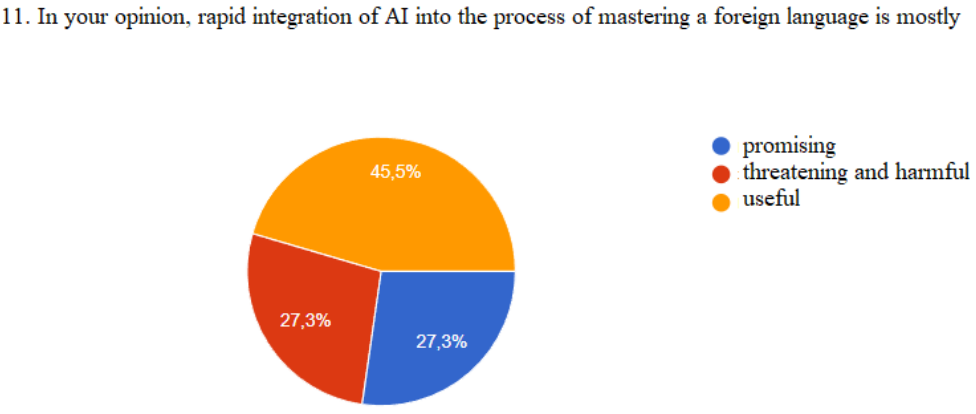

Figure 7. Respondents' answers to the question "In your opinion, rapid integration of AI into the process of mastering a foreign language is mostly promising/threatening and harmful/useful" Source: compiled by the author

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The twelfth question asked respondents about the factors that could be stumbling blocks on the way of the integration of GenAI in educational activities, and the thoughts about possible reasons have split among them. Thus, the majority of students that constitute 63.6% consider the lack of developed precise strategies and policies in terms of the academic integrity rules violation in particular, 27.3% admit that the reason is behind the lack of necessary skills to use the GenAI, while the rest 9.1% name the limited access to the resources and the cost for the particular software. It is worth mentioning that there are no respondents who see some societal resistance to the integration of the GenAI (Figure 8).

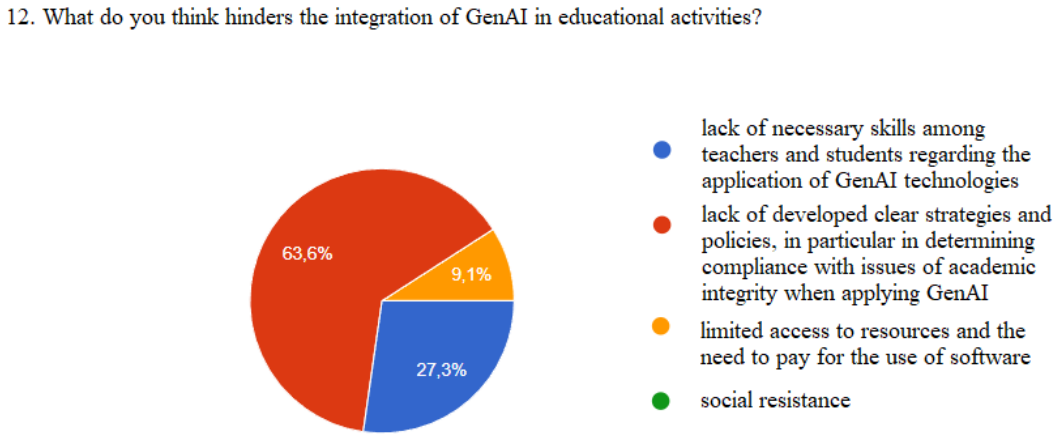

Figure 8. Respondents' answers to the question "What do you think hinders the integration of GenAI in educational activities?". Source: compiled by the author

The final thirteenth open question allowed respondents to reflect on the offered survey and leave their thoughts on the researched question. Some of the respondents' ideas expressed, and they expressed their concerns about the drawbacks of the GenAI technology, which is the limit of the database, or the potential to lose the skills of the analysis and processing of information by humans. Also, there was advice expressed concerning the citation problems that might occur due to the possibility of GenAI to hallucinate.

5. CONCLUSION

The conducted survey aimed at analyzing the students' familiarity with AI, their attitude, and the influence of the use of AI on their academic performance, specifically in terms of foreign language acquisition revealed the importance of content and methodical expansion within foreign language training at the Faculty of Pedagogical Education of Borys Grinchenko Kyiv Metropolitan University.

The survey and its results will be useful for educators, and undergraduate, postgraduate, and doctoral students who are willing to start doing their research on GenAI technology use with educational purpose.

The presented research does not exalt the issue discussed, so further research could enlarge the number of respondents or their specialties, as well as higher education establishments. There is also a potential for a comparative study on students via teachers' awareness of the use of GenAI in the educational process and foreign language acquisition in particular.

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