their foreign language skills, they are also aware of the lurking dangers of an excessive and uninformed usage of AI.

PRANIMI I IA NË TË MËSUARIT E GJUHËVE TË HUAJA: PERSPEKTIVA E STUDENTËVE TË UNIVERSITETIT

Abstrakt

Inteligjenca artificiale (IA) është bërë pjesë e pashmangshme e praktikave bashkëkohore të të mësuarit. Nxënësit kanë në dispozicion mjete të ndryshme të zhvilluara mbi parimet e IA, të cilat u ofrojnë atyre përvoja të personalizuara të mësimit të gjuhës. Kjo mund të zbatohet për përvetësimin e fjalëve të reja dhe kombinimet e tyre në struktura më të gjata sintaksore, ose për zotërimin e rregullave gramatikore dhe përdorimin e tyre praktik në mjedise dhe situata të ndryshme të të folurit, të shoqëruara me reagime përkatëse, në kohë reale. Kur përdoren në mënyrën e duhur, mjetet e IA mund ta transformojnë procesin e të mësuarit në një përvojë motivuese, duke mundësuar qasje në kategori të ndryshme nxënësish me prejardhje të ndryshme, nga e gjithë bota. Qëllimi i punimit është i dyfishtë – të analizojë qëndrimin dhe përvojën e studentëve të universitetit ndaj mjeteve të IA në mësimin e një gjuhe të huaj dhe të ndihmojë në identifikimin e këndvështrimit të tyre mbi çështjet dhe rreziqet e mundshme që dalin nga përdorimi i IA në arsimin e lartë. Për qëllime të këtij studimi, ne zhvilluam një anketë online për nxënësit e gjuhëve të huaja të ndryshme në institucione të ndryshme të arsimit të lartë në Republikën e Maqedonisë së Veriut. Analiza cilësore dhe sasiore e rezultateve të fituara zbulon se përderisa studentët e gjuhës po fillojnë përfundimisht të përdorin mjetet e IA për të përmirësuar aftësitë e tyre në gjuhët e huaja, ata gjithashtu janë të vetëdijshëm për rreziqet e fshehura të një përdorimi të tepruar dhe të painformuar të IA.

Fjalë kyçe*: mjetet e AI, përvetësimi i gjuhëve të huaja, arsimi terciar*
Introduction

Artificial Intelligence (AI) is defined as "the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings" (Britannica, 2024)[1]. The term "artificial intelligence" was coined in 1955 (Cave et al., 2023: 17). Since then, AI has found practical implementation in a plethora of

---

[1] https://www.britannica.com/technology/artificial-intelligence

domains. Thus, for instance, AI can be applied in journalism for gathering information or writing stories, in weather forecasting for analyzing meteorological data and making predictions, in fraud detection for monitoring and identifying potentially fraudulent transactions, for military equipment and weapons operated without humans, etc. (Fengchun et al., 2021).

Besides other fields, AI has also been integrated in education, particularly in the last decade. It has transformed the traditional educational environment and provided both the instructors and the learners with newly emerged, AI-driven teaching and learning experiences. These experiences largely rely on using teaching and learning tools grounded in AI mechanisms, offering a wide range of possibilities for instructors and learners to present and acquire knowledge assisted by a "non-human" medium.

AI-driven tools have been penetrating the educational environment in various subjects, including foreign language instruction and acquisition. In the context of foreign language teaching, AI tools have become invaluable media, serving, inter alia, as resources for extracting and designing teaching materials that can be used in the foreign language classroom, or for assessing learners' achievement. On the other hand, AI tools offer language learners personalized learning opportunities, with real-time access to relevant data and information processed and delivered to them upon their immediate request, related to various aspects of the acquisition of both lexical and grammatical knowledge of the language in question. Thus, for instance, instead of attending instructor-led classes, they can start a self-paced language course on Duolingo from the comfort of their homes, they can use ChatGPT when researching information needed for writing essays, with a single click, they can use Google Translate for translating texts into their language etc. However, in order to fully enjoy the benefits of this "newly-designed reality", it is necessary to have AI literate teachers and learners, who will use the new technologies in an appropriate way, so that they can serve the purpose they are intended for, taking into account not only the benefits, but also the risks AI carries with itself.

AI tools are also becoming the new reality in Macedonian foreign language classrooms, at all levels of education. Bearing this in mind, the present study aims to address this dearth of empirical research and

provide a basis for more informed discussion on the use of AI tools in higher education. More specifically, the study attempts to fulfil, at least partly, a specific research gap which concerns the use of AI tools in foreign language learning at tertiary education. Namely, it looks into Macedonian university students' attitudes to and experiences with AI language learning tools. Also, it aims to disclose students' perspectives on the issues and potential risks that arise from the use of AI in mastering a foreign language. The research instrument utilized for the purposes of this study was an online survey, which targeted foreign language learners at different universities in RN Macedonia.

Prior to disclosing the results obtained, we provide a brief theoretical background on the use of AI in education by drawing on a number of recent studies that have dealt with this issue, especially, in the context of foreign language acquisition. Consequently, we present the research methodology applied in this study; the results obtained, and concluding remarks in which we highlight the major findings and insights.

Theoretical background

AI Technologies in Education

The technological advances of the last century and the development of AI, accompanied by the widespread accessibility of the Internet globally, have had a huge impact on today's teaching and learning practices, replacing traditional methods with contemporary ones, often including AI-based instruction. This process has particularly been accelerated by the COVID-19 school closures which imposed the need for an adequate substitute for the human-to-human teaching approach dominating the area prior to the pandemics. This has led, inter alia, to the emergence of various AI-assisted platforms applicable in education, tailored to meet the needs of both instructors and students. AI in education refers to "the use of AI (Artificial Intelligence) technologies or application programs in educational settings to facilitate teaching, learning, or decision making" (Hwang et al., 2020). According to Chui et al., in an educational context, AI can: "(1) delegate assignments tailored to individual aptitudes; (2) facilitate human-machine dialogues; (3) assess student artefacts for constructive critique; (4) improve adaptability and interactivity in the digital world; (5) provide adaptive teaching strategies; (6) improve teachers' instructional competencies; (7) support teachers'

professional development; (8) provide automatic assessment; (9) predict student performance; (10) improve the performance of the educational unit management platform; (11) provide convenient and personalised service; and (12) support fact-based educational decision making" (Chui et al., 2023, as quoted in Moroianu, Iacob & Constantin, 2023: 908-909). Educational tasks are usually carried out through various tools, the most common ones being AI-powered chatbots, "designed to mimic human conversation using text or voice interaction, providing information in a conversational manner" (Labadze, Grigolia & Machaidze, 2023:1), whose history of use dates back to the 1960s (ibid). Throughout the years chatbots have evolved into valuable educational tools able to perform a variety of operations involving text, speech, video etc., gaining popularity among learners worldwide.

Kamalov et al. (2023: 3) very neatly present the multifaceted impact of AI in education by elucidating its: *applications* (e.g. personalized learning; assessment automation, and intelligent tutoring system); *benefits* (e.g. enhanced learning outcomes; time and cost efficiency, and global access to education), and *challenges* (e.g. data privacy and security; bias and discrimination, and plagiarism and academic integrity). On the basis of their study, Kamalov et al. (2023: 4) conclude that 'in general, the benefits of the new technology outweigh its dangers' and that 'rather than stopping or preventing the advancement of new AI technology in education, it will be more beneficial, on balance, to integrate it into the curriculum' as 'ultimately, the only way forward is to accept and embrace the new technology, while implementing guardrails to prevent its abuse'. Kamalov et al. (2023) also note that while AI-powered adaptive learning systems can undoubtedly improve students' engagement, motivation, and academic achievement, making education more effective in turn, governments too, have to recognize the importance of AI for future development and produce a comprehensive policy and guidance regarding the use of AI in education.

AI-language learning tools
AI language learning tools are computer programs or software applications that use AI algorithms to help users learn and improve their skills in a foreign language (Font de la Vall & González, 2023).

Given that the use of AI language learning tools is a relatively new phenomenon which has attracted considerable attention on the part of researchers, the number of studies tackling this issue from different perspectives has been growing exponentially recently. Thus, for instance, Font de la Vall & González's (2023) study focuses on the benefits of using Duolingo, Elsa Speak, Google Translate, etc., highlighting in particular their ability to save time by speeding up the learning process; to give students personalised learning experiences, and to help them learn about other cultures. On the other hand, Font de la Vall & González (ibid.) also dwell on the challenges of using AI language learning tools such as the need for more human interaction; the inability of AI to depict all the complexities of language when used in context, and the fact that the training of the AI-language learning tools requires a huge amount of data.

Woo and Choi (2021), by analysing articles published in peer-reviewed journals from 2017 to 2020, attempted to unveil what types of AI tools have been developed for various target language skill areas (e.g. grammar, vocabulary, listening, reading, writing and pronunciation); and, how these tools have impacted language learning. The AI tools identified, target diverse language skill areas and incorporate many types of features, configurations, and capabilities. Thus, for many of these tools, machine learning (ML) and natural language processing(NLP) are incorporated into their configuration, with NLP techniques (e.g., POS annotation, language modeling and machine translation) being more frequently used for the writing, grammar, vocabulary, and reading tools, and NNs being used more often for the speaking, listening, and pronunciation tools. As to the impact of these AI tools on language learners, Woo and Choi (2021) note that the analysed studies point out students' satisfaction and contentment with the AI tools, especially, with respect to their ability to identify errors, provide feedback, find resources, and assess language abilities.

Lee et al. (2024), by means of an online survey and interviews, explored the perceptions of Korean university students regarding AI-based writing tools, such as Google Translate, NaverPapago, and Grammarly. Their results indicate that students recognise both the strengths and weaknesses of these AI-based writing tools. However, while they demonstrate awareness of the potential of AI tools to improve their writing skills; they also acknowledge that the excessive

use of these tools could eventually interfere with their writing skills. Haristiani (2019), in her study, targeted one specific AI tool – AI Chatbot, which as a language learning medium can carry out conversations through audio or text. The data in this study were obtained from literature review on chatbot researches, and from observation results on chatbot-based language learning medium developed by the author herself. Haristiani's (2019) results indicate that chatbots have a high potential to be used as a language learning medium, both as a tutor in practicing language, and as an independent learning medium. More importantly, the research results reveal that language learners are interested in using chatbots because they can be used anytime and anywhere, and they are more confident in learning languages using chatbots than when dealing directly with human tutors. Of all the chatbots, ChatGPT which was released in November, 2022, has rapidly become a most popular AI-tool among professionals and students alike. The reason why it has gained such popularity in a relatively short period of time can be attributed to the fact that it can perform a broad range of tasks, such as text summarisation, question answering, creative writing (poetry or fiction), producing high-quality long or short form content (blog posts), reacting to conversational prompts, elucidating difficult subjects, concepts, or themes, and repairing mistakes in existing code or creating new codes (Eke, 2023). ChatGPT-4, its most recent version, is said to be even more potent and able to carry out much more complicated tasks.

On the basis of this short overview of current literature on the use of AI language learning tools, there is no doubt that previous studies do confirm the advantageous nature of these tools, and more importantly, they give clear hints that students, being the primary beneficiary of the AI tools, seem to be acutely aware of both the potential and the risks associated with AI.

Research methodology
The overall objective of this study is to make an inquiry about the use of AI tools in foreign language learning at the tertiary level, from the point of view of students in higher education institutions in RN Macedonia. More precisely, the aim of the study is twofold: – to analyse the attitude and experience of university foreign language students with AI tools, and to identify their perspective on the issues

and potential risks that arise from the use of AI in mastering a foreign language. Consequently, the study was based on three research questions:

RQ1. What is the attitude of the students towards the use of AI tools in learning a foreign language at the tertiary level?
RQ2. What is the experience of the students regarding the use of AI tools in learning a foreign language at the tertiary level?
RQ3. What potential risks and issues do students identify when using AI tools in learning a foreign language at the tertiary level?

The research instrument used to provide answers to the above-stated research questions was in the form of an online survey, prepared and conducted by using Google Forms. The survey was open for university students from higher education institutions to fill it in online, from April 20 to May 10, in the academic year 2023-2024. Some of the prompts in the survey were inspired by recent similar surveys on the use of AI in education, conducted in other countries (Welding, 2023; Malmström et al., 2023; Farhi et al., 2023).

The survey consisted mostly of closed-ended questions; however, several open-ended questions were included in it as well. It contained four sections[2], in addition to the initial 'general info' section in which the students were expected to state their age, gender, university, study program, cycle of studies, and what foreign language course they were attending in the course of the last academic year of 2023-2024. In the second section, the students were encouraged to state their experience with AI tools; whereas, in the third section, the students were asked to rate their familiarity with and frequency of use of specific types of AI tools such as Google Translate, DeepL, automatic captions on YouTube, Grammarly, Duolingo, and Babbel. The fourth section prompted students to state their attitude towards the use of AI tools in foreign language teaching, whereas, the fifth section, dealt with the students' beliefs about the future of AI in education and society in general.

---

2 Originally, the survey was more extensive and contained 6 question sections, in addition to the initial 'general info' section. However, for the purposes of this study, we limited our discussion on the four sections that refer to AI-tools in general. The remaining two question sections, which deal with the use of ChatGPT, will be elaborated on in a follow-up study.

The analysis of the data obtained via the survey was of a qualitative and quantitative nature. In the upcoming section, we will present and interpret the results obtained.

Results

Participants' Background

The introductory section of the questionnaire contained 9 questions aimed at collecting general information about the participants in the study.

The online questionnaire was filled in by 180 students from 12 state and private higher education institutions in RN Macedonia[3]. The participation in the survey was on a voluntary basis and the answers were submitted anonymously, with prior knowledge and agreement of the respondents that their data will be used for scientific purposes only. As to their age, 171 students (95%) were aged 18-30, while 9 students (5%) were aged over 31. Regarding gender, the questionnaire was returned by 123 (68.3%) female students, and 57 (31.7%) male students. 177 respondents (98.3%) were first-cycle students, 2 respondents (11.1%) were second-cycle students, while 1 respondent (0.6%) was a third-cycle student. A vast majority of 166 students (92.2%) have had foreign language instruction in the academic year 2023-2024. As far as the foreign languages are concerned, a majority of 160 students (91%) chose English as a foreign language, 10 students (5.6%) chose French as a foreign language, 4 students (2.2%) chose German, while 2 students (1.1%) chose the option "other language".[4] The research targeted: 1) students enrolled in different state and private higher-education institutions who have had foreign language instruction in different foreign languages; 2) students enrolled in

---

[3] The distribution of the participants was as follows: 40 participants from the Higher Medical School – Bitola; 32 participants from the Faculty of Security – Skopje; 31 participants from the Faculty of Education – Bitola; 26 participants from the Faculty of Information and Communication Technologies – Bitola; 9 participants from the Faculty of Economics – Prilep; 9 participants from the Faculty of Technical Sciences – Bitola; 1 participant from the Faculty of Tourism and Hospitality – Ohrid; 1 participant from the Faculty of Biotechnical Sciences – Bitola, 14 participants from the Faculty of Philology "Blaže Koneski" – Skopje; 4 participants from the Faculty of Philology – Shtip; 9 participants from Business Academy Smilevski – Skopje, and 4 participants from the University of Skopje.

[4] Under the category "other language" one of the students added Macedonian, while the other one added English and French (although both languages were already provided as an option).

higher-education institutions where foreign language instruction was given by the authors of the paper or other language instructors who helped in the distribution of the questionnaire, and 3) students who had potentially used AI tools in foreign language learning in their formal education. For the purposes of this research, it was not relevant to distinguish whether the students were: 1) studying the foreign language as their major subject; or 2) studying a different major and only taking a foreign language course. Students who were taking several foreign language courses, had to limit their choice to only one language.[5]

Students' Experience with AI (Artificial Intelligence) Tools

The second section of the questionnaire comprised general questions that addressed the students' use of AI tools in general. Unsurprisingly, most of the respondents (67.8%) stated that they had had experience with AI tools, while 31.1% of them gave a negative answer. The rest of the respondents (1.1%) chose not to provide answer to his question (Fig.1).

Figure 1. Ss' responses to Q1 - I have experience using AI tools
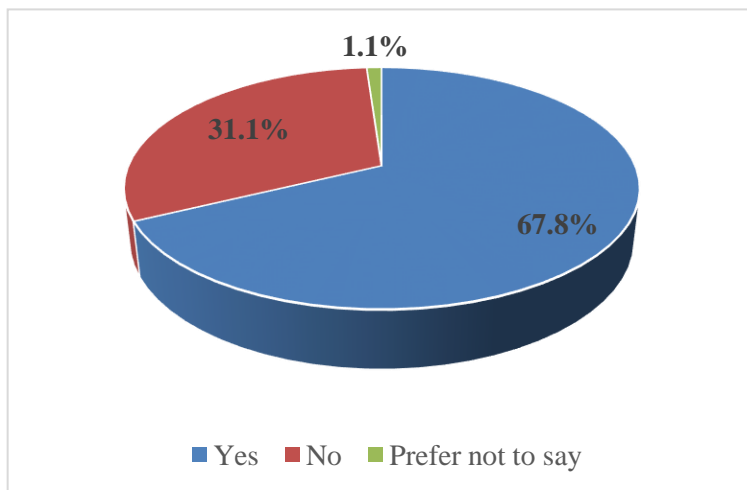
As far as the purposes for using AI tools are concerned, the provided answers suggest that the students were more inclined towards using

---

[5]Nevertheless, five students voluntarily added a second language. For consistency reasons, this information was not considered for the purposes of the research.

these tools for satisfying their curiosity and for tasks of personal nature, rather than for educational purposes. Thus, a majority of 65% students stated that they had used AI tools to help them with their own personal projects, i.e. that they had used them out of curiosity, or just for fun; 30.6% had not used them for this purpose; while 4.4% did not provide an answer (Fig.2).

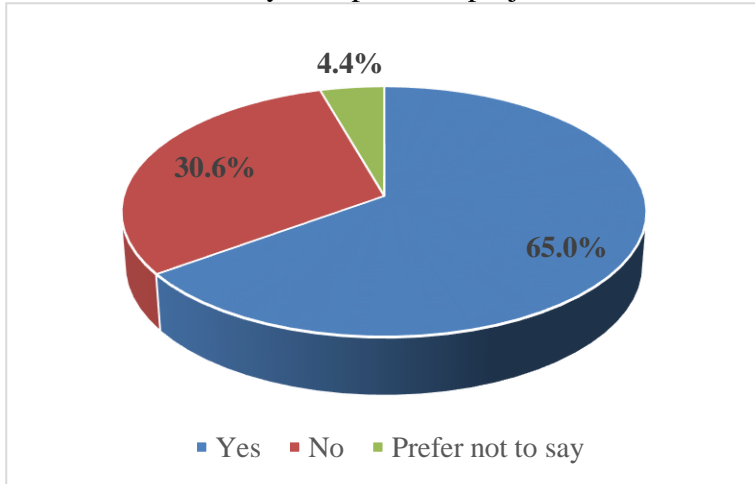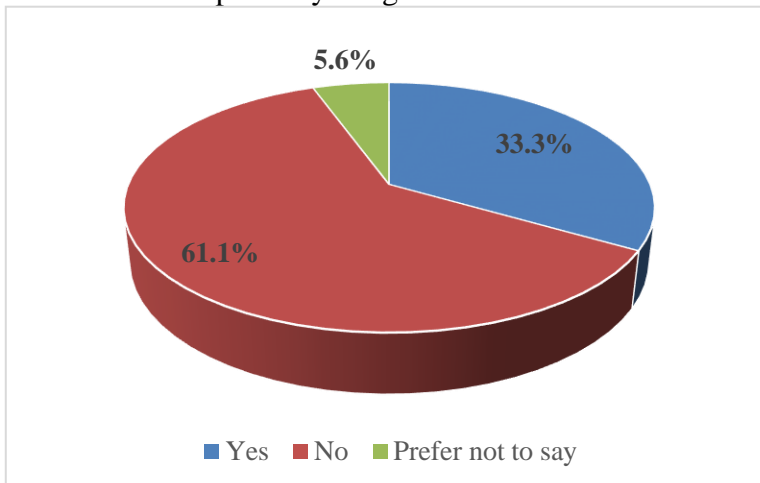Figure 2. Ss' responses to Q2 - AI tools help me (or have helped) me for my own personal projects

Figure 3. Ss' responses to Q3 – AI tools help me/ have helped me complete my assignments or exams

However, when it comes to the educational environment, their experience is quite the opposite. For helping them complete their

assignments or exams, only 33.3% of the students answered positively, while a majority of the students (61.1%) answered negatively, and the rest of them (5.6%) preferred not to say what their experience was in this aspect (Fig.3).

The percentage of students who had relied completely on AI tools for educational purposes is even lower. According to the provided answers, if we deduce those 6.1% of them who did not provide answers, only 11.7% of the students stated that they used/had used AI tools to complete an assignment and then turned it in as is, with no edits, as opposed to the vast majority of them (82.2%) who had not had experience of this type (Fig.4).

Figure 4. Ss' responses to Q4 – I use/ have used AI tools to complete an assignment and then turn it in as is, with no edits
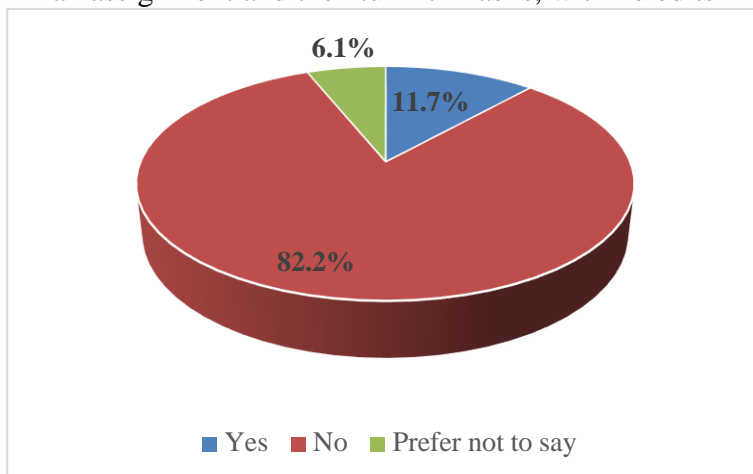
These figures imply that the respondents rely on their own knowledge and independent work, the degree of which was further assessed in the survey. When asked whether they used/had used AI tools to complete the majority of the assignment, but then revised it as needed, a minority of the respondents (27.8%) answered positively, while a majority of them (67.8%) answered negatively, and 4.4% of the respondents prefered not to answer this question (Fig.5). As expected, most of the respondents (55.6%) used or had used AI tools for some part of the assignment, but completed the majority themselves. This practice was not shared by 39.4% of the respondents, while 5% of them decided not to give an answer (Fig.6). All these findings suggest a rather partial use of AI tools by the students when it comes to the completion of their assignments.

Figure 5. Ss' responses to Q5 – I use/ have used AI to complete the
majority of the assignment but revise as needed
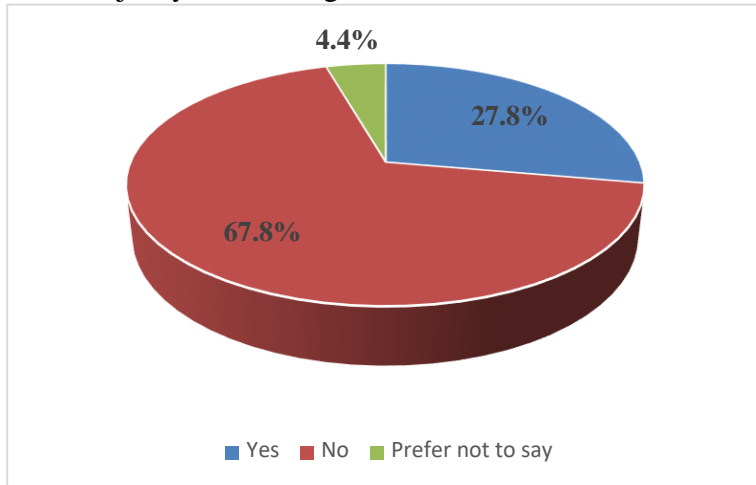
The last two questions in this section (Q7 and Q8) focused on the instructors and the educational institutions the respondents are affiliated with, regarding the instructors and the faculties' practices and official positions when it comes to the use of AI tools in education. According to the obtained answers, only 30% of the respondents stated that their instructors had specified how to use AI tools in an ethical and responsible manner, while 61.7% answered negatively to this statement, and 8.3% of them provided no answer (Fig.7). The findings regarding this issue might account for the answers obtained for the previously elaborated questions, i.e. the students' lower level of experience with AI tools for educational purposes.

Figure 6. Ss' responses to Q6 – I use/ have used AI for some part of
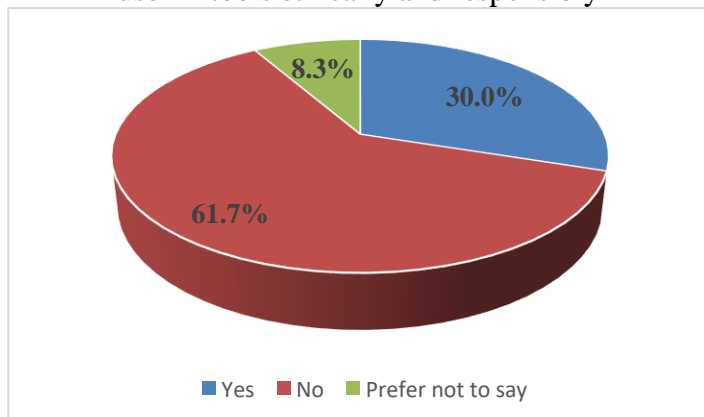the assignment but complete the majority myself
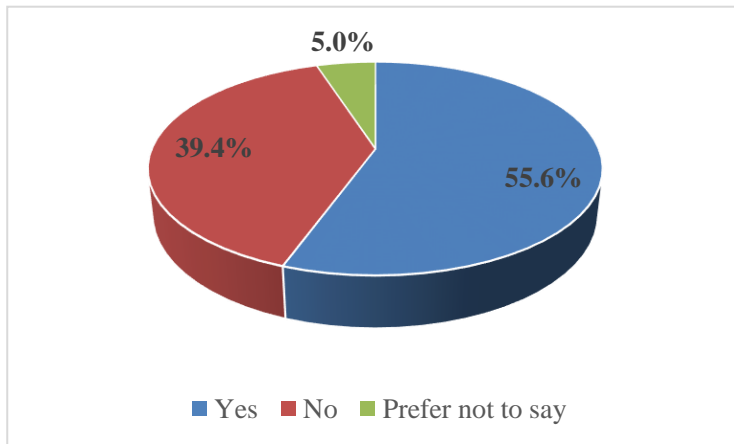
Figure 7. Ss' responses to Q7 – My instructors have specified how to use AI tools ethically and responsibly

Further analysis is needed to address the reasons for such an attitude on the part of the instructors, especially if one takes into consideration that there is no formal prohibition on the use of AI tools in educational settings, at least based on the answers to the last question from this section. More specifically, only 15% of the respondents stated that their instructors and/or school honour code had prohibited the use of AI tools, while 62.% responded negatively to this statement, and 22.8% preferred not to say whether such tools were officially prohibited or not (22.8%) (Fig.8).

Figure 8. Ss' responses to Q8 – My instructors and/ or school honour code have prohibited the use of AI tools
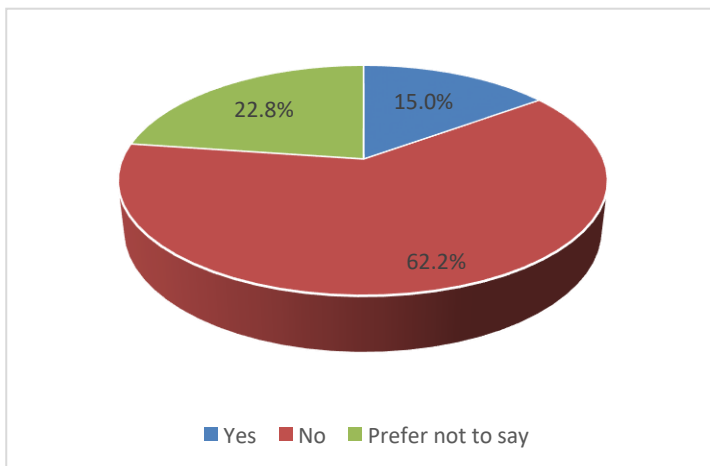
Students' Familiarity and Frequency of Use of AI Tools in Foreign Language Learning

The questions from the fourth section of the questionnaire were about students' familiarity with AI tools and how frequently they use them when learning foreign languages.

More specifically, Q9 in this section concerned the students' use of tools for translating from one language to another (e.g. Google Translate, DeepL, etc.). The answers obtained provide a clear picture that almost all surveyed students (98.9%) are familiar with this type of tool, and only 1.1% have not heard of this type of AI tool before.

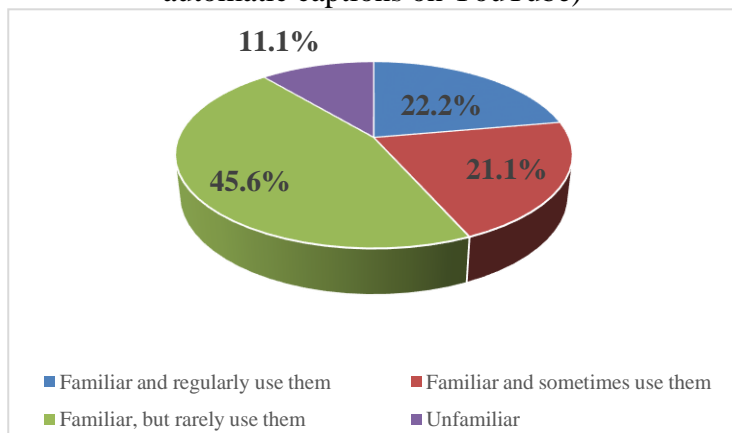Figure 9. Ss' responses to Q9 – Language translation tools (e.g. Google Translate, DeepL etc.)
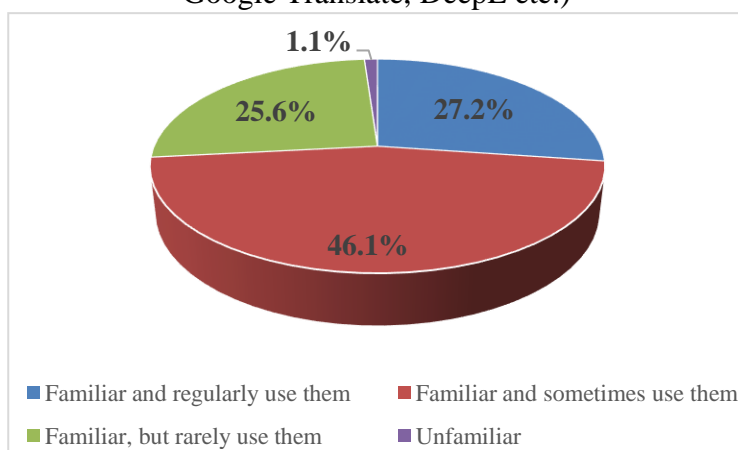
Figure 10. Ss' responses to Q10 – Speech-to-text transcription (e.g.
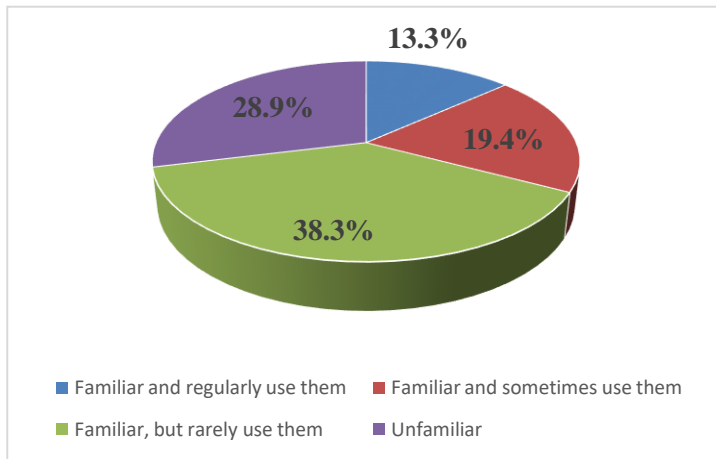
However, even the students who are familiar with these AI tools do not use them to the same extent. Thus, 46.1% of the total number of respondents stated that they sometimes use them, and the percentage of respondents who answered that they use them regularly (27.2%) or occasionally (25.6%) is very similar (Fig.9).

The next question (Q10) was related to the use of AI transcription tools, i.e. speech to text conversion tools. A concrete example of such a tool mentioned in the questionnaire was the YouTube automatic captioning tool. The largest percentage of respondents (88.9%) stated that they were familiar with these tools (Fig.10), with 22.2% of them using them regularly, 21.1% resorting to them occasionally, and 45.6%, i.e. the majority of the students using them rarely.

Q11 was about online tools used to help students with writing assignments or to improve their writing skills (e.g. Grammarly). 71.1% of students stated that they are familiar with these tools, while 28.9% have never heard of them.

Figure 11. Ss' responses to Q11 – Online writing assistance/enhancement tools (e.g. Grammarly)

Of the total percentage of students who are familiar with this type of AI tool, the majority (38.3%) rarely use them, almost two times fewer students (19.4%) use them sometimes, and only 13.3% use them regularly (Fig.11). When asked if they use language learning applications such as Duolingo, Babbel, and others (Q12), 35 out of the total number of 180 respondents (19.4%) declared that they were not familiar with these tools. Of the remaining 145 respondents, 44.4% rarely use these AI tools, 22.8% declared that they sometimes use them, and only 12% answered that they use them regularly (Fig.12).

Figure 12. Ss' responses to Q12 – Language learning apps (e.g. Duolingo, Babbel etc.)
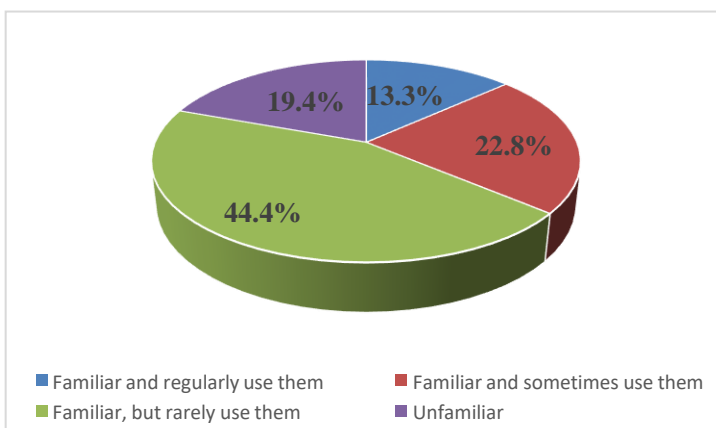
In the last question of this part of the questionnaire, the students who have used other AI tools were asked to provide specific examples. Only 20 students provided an answer to this open-ended question, and in their answers ChatGPT was mentioned as the most frequently used AI tool (8 answers). Apart from it, Elsa Speak (2 answers), Copilot (1 answer), Zootero (1 answer), Toolbar extensions for introducing new vocabulary, Efla Soft (1 answer), LingQ for learning a second foreign language (1 answer), and BonPatron, "for grammatical correction of French texts" (1 answer) were also mentioned. Two respondents did not understand the question and mentioned Duolingo in their responses, despite the fact that this AI tool was already listed among the other language learning tools. Three respondents answered "no" and "I have not used any other tools".

Students' Attitude towards the Use of AI Tools in Foreign Language Learning
The first set of questions in this section was aimed at assessing students' views regarding some ethical issues with reference to the use of AI tools for the purpose of learning a foreign language. The answers obtained reflect a somewhat negative perception when it comes to their use in completing assignments. More precisely, 42.8% of the respondents consider their use in this context as cheating or plagiarism, while only 18.3% of them hold the opposite view. Interestingly, 38.9% took a neutral stance regarding this practice (Fig.13).

Figure 13. Ss' responses to Q13 – Using AI tools to complete assignments and exams equals cheating or plagiarism
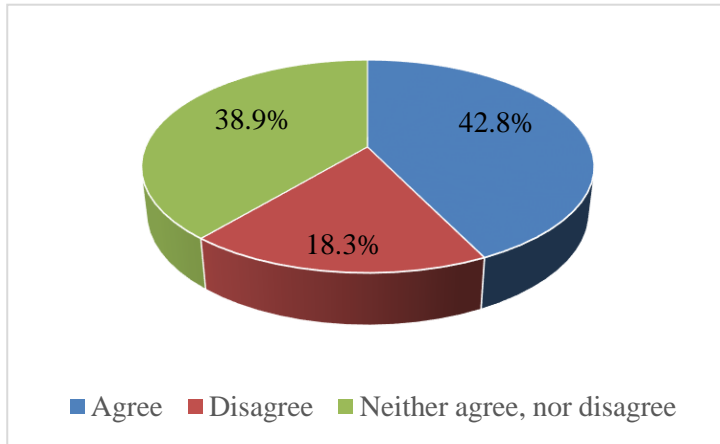
However, despite these figures, a majority of the respondents (53.3%) agreed that AI could be used ethically and responsibly when completing a given assignment or a task, as opposed to the 19.4% of them who disagreed with this. Here, again, a considerable share of the respondents (27.2%) neither agreed nor disagreed with the statement (Fig.14).

Figure 14. Ss' responses to Q14 – It is possible to use AI in an ethical and responsible way to help complete my assignment and exams
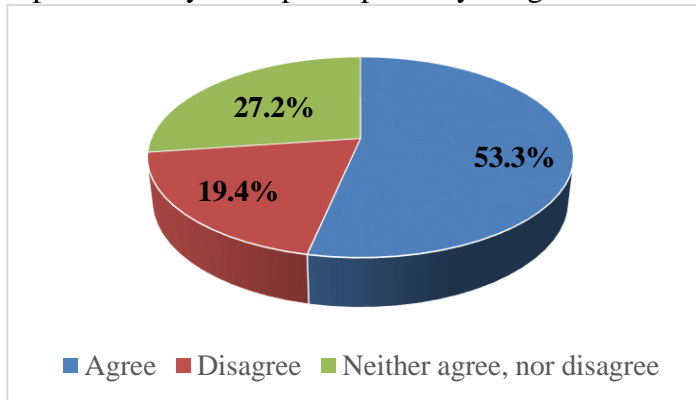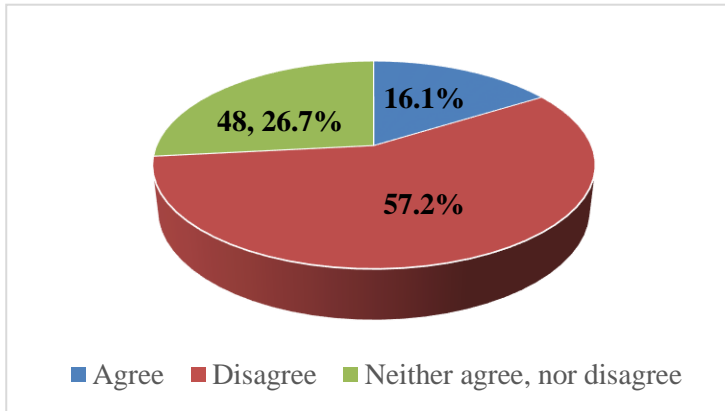

Figure 15. Ss' responses to Q15 – AI tools should be prohibited for educational purposes

Finally, even though the largest number of students perceived it as cheating or plagiarism, only 16.1% of the students think that AI tools should be prohibited for educational purposes, while a majority of 57.2% expressed their disagreement, and 26.7% expressed a neutral position (Fig.15). This means that in spite of the perceived reservations as to the ethical aspects of their practical use, most of the students disapprove of the possible ban on using AI tools in educational institutions.

The next set of questions addressed the respondents' perceptions of the current practices among the students regarding the use of AI language tools. A majority of them (67.2%) expressed their agreement regarding the increasing use of AI language tools among students, as opposed to the 6.1% of them who disagreed with this, and the 26.7% who were neutral (Fig.16). In addition, even a larger proportion of the respondents (70%) viewed AI tools as the new normal in the future, compared to 7.2% who disagreed, and 22.8% of them who were neutral (Fig.17). This shows their high level of awareness of the "AI assisted" reality we live in, as well as the reality we will inevitably be facing as humans in the future, irrespective of their knowledge, personal experiences and views regarding various aspects of using AI tools, both in language instruction and education in general.

Figure 16. Ss' responses to Q16 – The use of AI language tools is becoming increasingly common among university students
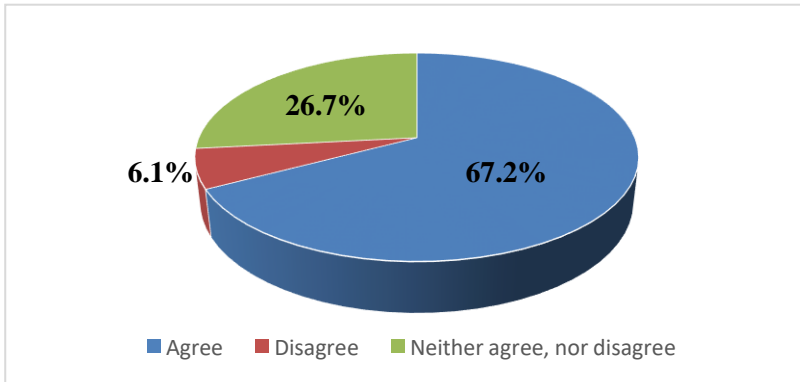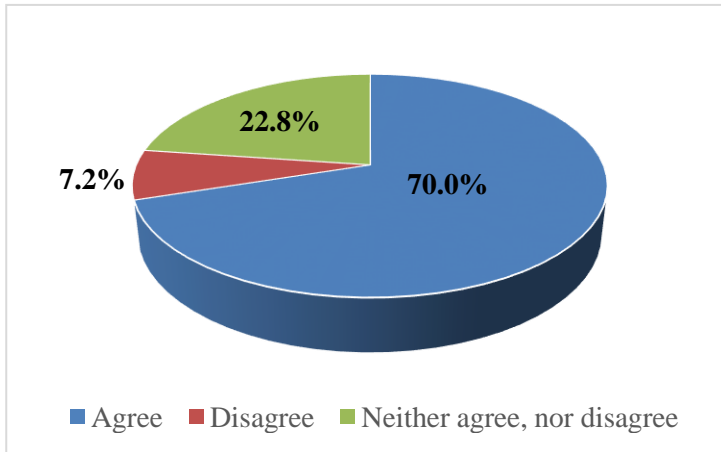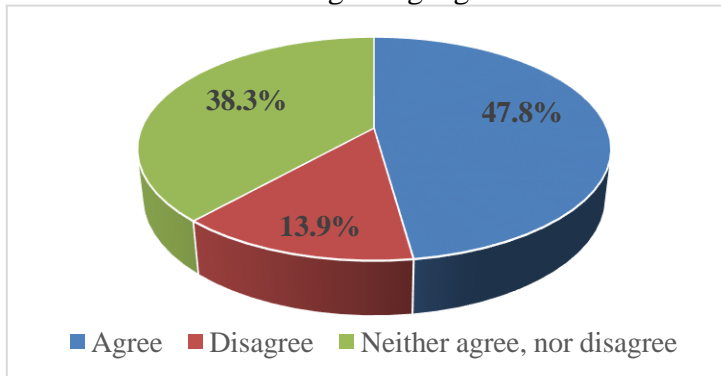
Figure 17. Ss' responses to Q17 – In the long run, AI tools will become the new normal


The respondents did not have a negative attitude regarding the impact of AI language tools on the students' foreign language abilities, as well.

Figure 18. Ss' responses to Q18 – AI language tools improve students' foreign language abilities

Thus, according to almost half of them (47.8%) the AI language tools contribute to the improvement of students' foreign language abilities, while only 13.9% of them expressed disagreement. The rest of the respondents (38.3%) were neutral (Fig.18). Similarly, 44.4% of the respondents highlighted the fact that AI is replacing the traditional methods for foreign language acquisition, 20% of the respondents disagreed with this, while the rest of them (35.6%) expressed a neutral position (Fig.19).

Figure 19. Ss' responses to Q19 – AI is replacing the traditional foreign language learning methods
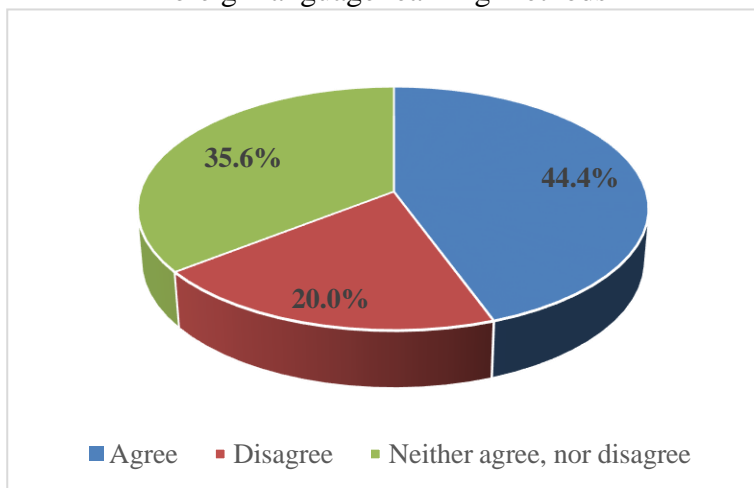
The final question in this section focused on the students' opinions regarding the possible drawbacks of using AI in the context of foreign language learning. The collected answers indicate that the respondents predominantly pointed to the errors, unfamiliarity of AI with certain grammatical structures, incorrect information or wrong answers generated by AI, especially when completing language exercises and translating. More specifically, one respondent pointed out the AI drawbacks when learning languages other than English, depicting AI tools as "not that much sophisticated" for learning these languages.

Students' Beliefs about the Future of AI

In the final section of the questionnaire, the respondents were asked about their views on the future of AI. According to their answers, concerns over the influence of AI on their education and prospective career paths were expressed by 23.9% of them. On the other hand, 40% held the opposite view, while 36.1% gave a neutral answer (Fig.20). As

far as the use of AI in society in general is concerned (Q21), there was an almost equal percentage of students who stated that they were worried about this (35.6%) and of those who were neutral (35%), while the rest of the students (29.4%) did not express concerns over this issue (Fig.21). Finally, 36.7% of the respondents agreed that the use of AI defeated the purpose of education, as opposed to 27.2% of the respondents who disagreed, and 36.1% of the respondents who neither agreed, nor disagreed with this (Fig.22). The presented figures do not indicate a high level of concern on the part of the students over the impact of AI on a personal level. The same conclusion applies to the use of AI at the societal level, and to its negative impact in the context of education as well, although the "agree" option attracted more students, compared to the previous question. One possible reason for the relatively large share of the neutral answer might be the short history of the use of AI tools.

Figure 20. Ss' responses to Q20 – I am worried about the impact of AI on my education and the career path that I intend to follow
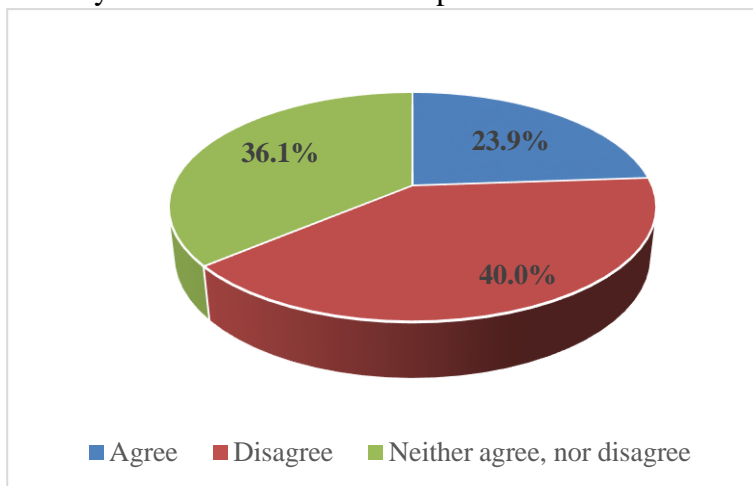

Figure 21. Ss' responses to Q21 – I am worried about the use of AI in society in general
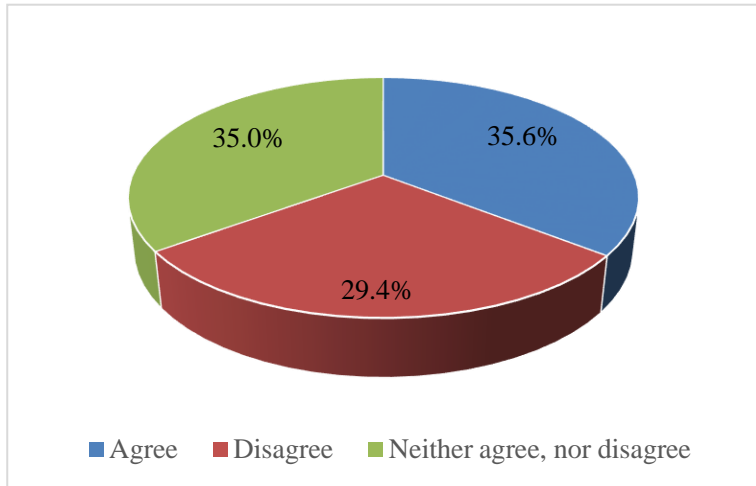
Figure 22. Ss' responses to Q22 – The use of AI by students defeats
the purpose of education
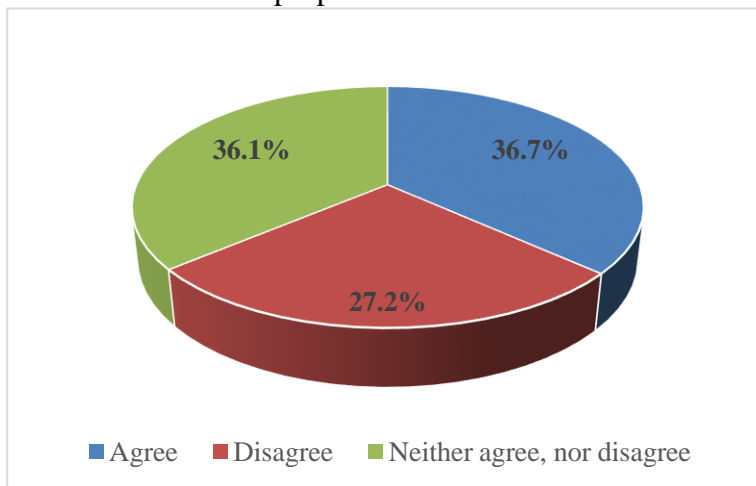
The lack of concern over the future of AI is also visible in the students'
answers as to whether human intelligence and creativity could be
replaced by AI (Q23). A majority of 62.8% respondents agreed that
human intelligence and creativity couldn't be replaced by AI, while a
small proportion of them (17.8%) expressed their disagreement, and
19.4% remained neutral (Fig.23).

Figure 23. Ss' responses to Q23 – AI can't replace human
intelligence or creativity

Agree ■ Disagree ■ Neither agree, nor disagree
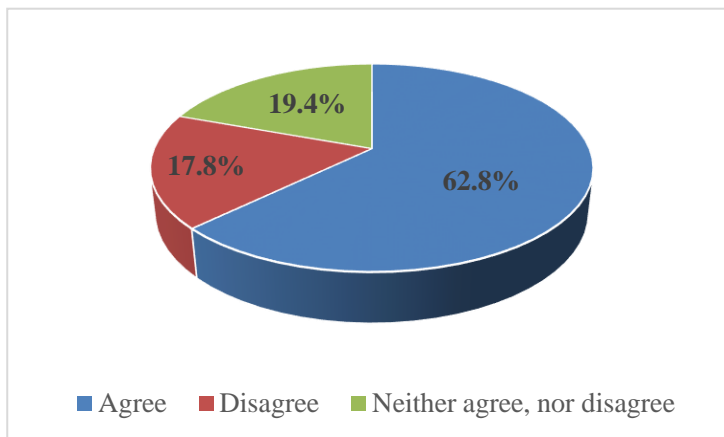
The final question referred to the respondents' beliefs or predictions regarding the AI future. From the answers provided by the students, a conclusion can be drawn that there was a similar distribution of expressed positive, negative and mixed beliefs and predictions. The positive beliefs revolved around the necessity of embracing AI as an inevitable part not only of our future, but also of the present, accompanied by all the benefits it offers for educational purposes, including foreign language learning. On the other hand, the negative ones pointed to the possible replacement of humans by AI, and the fact that it seriously threatens students' creativity and critical thinking. Those who provided neutral answers acknowledged the benefits of AI in the learning process, but called for a balance between human-meditated instruction and the use of modern technologies. As one respondent metaphorically put it, "if we let a robot lead us, we become its slaves, and not the other way around, as things should actually be".

Conclusion

On the basis of this study which included students from a variety of higher education institutions in Macedonia, we can safely conclude that university students are aware of the existence of AI tools but they mostly use them out of curiosity and for non-educational purposes. Their attitude towards AI is to a great extent positive, although they also show signs of concerns regarding the potential implications of AI on their academic achievements and career prospects in general. The students' concerns are mainly related to the possible negative effects of AI on their creativity and critical thinking and the possible replacement of humans by AI in the future. From the AI language tools offered in the questionnaire, students show highest level of familiarity with and

use of language translation tools such as Google Translate and others, and lowest familiarity with online writing assistance/enhancement tools, such as Grammarly and others. Most of the ones who added other tools to the list chose ChatGPT. Last but not least, students' answers reveal that at this point the issue of using AI in education is still not seriously considered in the Macedonian educational settings. Thus, they claim that they do not receive sufficient instruction from their instructors as to how they can use AI tools to improve their language skills, since only 30% have been instructed on using AI tools in an ethical and responsible manner, and that the institutions where they study have no official policy as to the use of AI. These findings suggest thata further analysis is urgently needed to address the reasons for such an attitude on the part of instructors and higher education institutions. One possible explanation could be the fact that, considering that this is a relatively new trend, the instructors, policymakers and decision-making bodies at tertiary level are not adequately informed and equipped with skills to deal with AI in higher education.

To sum up, we hope that this paper provides a timely foundation for further discussion and inquiry about the use of AI tools in higher education, especially in the context of foreign language learning. We believe that the insights gained from this study concerning the student perception of the use of AI tools in foreign language learning can be utilized to raise awareness and instigate prompt and serious deliberations on shaping policy decisions and educational practices regarding the integration of AI in the higher education institutions in our country. This becomes an imperative, especially given that there is no point in ignoring the fact that AI-language learning tools are gaining momentum and their presence in the future will not only be undisputable but also increasingly more pronounced. AI tools will most definitely continue to evolve and will become even more powerful and valuable, especially, in the context of foreign learning languages. Hence, their integration is critical to improving the effectiveness and efficiency of language learning, and educators in higher education institutions should work on developing strategies for effectively integrating AI-based tools into university studies to upgrade the traditional methods, which apparently no longer fully meet the needs of the new digital generations of students.

In order to achieve a successful integration of AI tools in foreign

language instruction in Macedonia at the tertiary level, the following actions could be considered: analyzing good practices regarding this issue in other countries and assessing the possibility for their adaptation and implementation in the Macedonian educational environment; adopting official policy/strategy at national or institutional level, addressing the use of AI tools in education including foreign language instruction; creating "AI friendly" teaching and learning environment in higher education institutions with appropriate IT infrastructure to make AI tools accessible to all students; providing instruction/training for both instructors and students on the benefits and proper use of digital tools for educational purposes, etc.

References

Cave, S., Dihal, K., Hollanek, T., Katsuno, H., Liu, Y., Taillandier, A., & White, D. "The Meanings of AI: A Cross-Cultural Comparison". Imagining AI: How the World Sees Intelligent Machines, edited by Stephen Cave, & Kanta Dihal (Eds.), Oxford University Press, 2023, p. 345-359.

Eke, D. O. "ChatGPT and the rise of generative AI: Threat to academic integrity?" Journal of Responsible Technology 13, 100060, 2023, p. 1-4.

Farhi, F., Jeljeli, R., Aburezeq, I., Dweikat, F. F., Al-shami, S. A., & Slamene, R. "Analyzing the students' views, concerns, and perceived ethics about chat GPT usage." Computers and Education: Artificial Intelligence, 5, 100180, 2023, p. 1-8.

Fengchun, M., Holmes, W., Huang, R., & Zhang, H. (2021). AI and education: guidance for policy-makers. UNESCO, Paris, https://unesdoc.unesco.org/ark:/48223/pf0000376709.

Font de la Vall, R. R., & González, F. "Exploring the Benefits and Challenges of AI-Language Learning Tools." International Journal of Social Sciences and Humanities Invention, 10, 01, 2023, p. 7569-7576, DOI: 10.18535/ijsshi/v10i01.02ISSN: 2349-2031. https://valleyinternational.net/index.php/theijsshi.

Haristiani, N. "Artificial Intelligence (AI) Chatbot as Language Learning Medium: An inquiry." Journal of Physics: Conference Series, 1387, 012020, 2019, p. 1-6, doi:10.1088/1742-6596/1387/1/012020.

Hwang, G., Xie, H., Wah, B., & Gasevic, D. "Vision, challenges, roles and research issues of Artificial Intelligence in Education." Computers and Education Artificial Intelligence, 1, 13, September, 2020, p. 1-5, https://www.researchgate.net/publication/344177286_Vision_challenges_roles_and_research_issues_of_Artificial_Intelligence_in_Education.

Kamalov, F., Calonge D. S., & Gurrib, I. "New Era of Artificial Intelligence

in Education: Towards a Sustainable Multifaceted Revolution." Sustainability, 15, 16, 12451, 2023. p. 1-36, https://doi.org/10.3390/su151612451. Accessed at https://browse.arxiv.org/pdf/2305.18303v2.

Labadze, L., Grigolia, M., & Machaidze, L. "Role of AI Chatbots in Education: Systematic Literature Review." International Journal of Educational Technology in Higher Education, 20, 56, 2023, p. 1-17, https://educationaltechnologyjournal.springeropen.com/articles/10.1186/s41239-023-00426-1

Lee, Y.-J., Davis, R. O., & Lee, S. O. "University students' perceptions of artificial intelligence-based tools for English writing courses." Online Journal of Communication and Media Technologies, 14, 1, e202412, 2024, p. 1-14, https://doi.org/10.30935/ojcmt/14195.

Malmström, H., Stöhr, C., & Ou, A. W. (2023). Chatbots and other AI for learning: A survey of use and views among university students in Sweden. Chalmers University of Technology – Department of Communication and Learning in Science, Sweden, https://doi.org/10.17196/cls.csclhe/2023/01.

Moroianu, N., Iacob, S., & Constantin, A. "Artificial Intelligence in Education: a Systematic Review." Proceedings of the 6th International Conference on Economics and Social Sciences: Geopolitical perspectives and technological challenges for sustainable growth in the 21st century, 2023, p. 906-921, https://www.researchgate.net/publication/375138111_Artificial_Intelligence_in_Education_a_Systematic_Review.

Welding, L. "Half of college students say using AI on schoolwork is cheating or plagiarism." Best Colleges, 2023, https://www.bestcolleges.com/research/college-students-ai-tools-survey/.

Woo, J. L., & Choi, H. "Systematic review for AI-based language learning tools." Journal of Digital Contents Society, 22, 11, 2021, p. 1783-1792. DOI: 10.9728/dcs.2021.22.11.1783.

TRUE OR FALSE? UNIVERSITY STUDENTS' VIEWS ON 'FAKE NEWS' IN PRIMARY EDUCATION

Menelaos TZIFOPOULOS
University of Western Macedonia, Florina, Greece

Abstract
Current research shows that we read a large amount of information in a short time, but often without distinguishing when this information is true or false. In particular, it becomes apparent that a large number of 'Social Media'

users share content with other users, considering it to be true, while it constitutes 'Fake News'. Research in the US shows that internet users in 2016 shared more fake news during the 2016 presidential election than trueelection facts. In this logic, the recipient of a false news story can be affecteddue to assumptions, biases or emotional involvement in the news. We shouldalso understand the magnitude of the "risk" involved in receiving information, without checking its sources and validity. For this reason, in this paper, the views of candidate teachers of the Department of Primary Education of the University of Western Macedonia on fake news will be presented through quantitative research. Participants define the content of fake news and, at the same time, note whether they have been informed during their university studies about such issues. Furthermore, several ways to enhance the 'media literacy' skills of the candidate teachers have been proposed. The findings of the research, through descriptive statistics, revealed that the majority of university students are aware of the phenomenon of fake news, but they are not fully informed about how to deal with the phenomenon in school education.

Keywords: Fake News, Media Literacy, primary education, candidate teachers

E VËRTETË APO E RREME? PIKËPAMJET E STUDENTËVE TË UNIVERSITETIT MBI 'LAJMET E RREME' NË ARSIMIN FILLOR

Abstrakte
Hulumtimet aktuale tregojnë se ne lexojmë një sasi të madhe informacioni në një periudhë të shkurtër kohe, por shpesh pa dalluar se kur ky informacion është i vërtetë apo i rremë. Në veçanti, bëhet e dukshme se një numër i madh i përdoruesve të 'Social Media' ndajnë përmbajtje me përdoruesit e tjerë, duke e konsideruar si të vërtetë, ndërsa përbën 'Fake News'. Hulumtimet në SHBA tregojnë se përdoruesit e internetit në vitin 2016 ndanë më shumë lajmetë rreme gjatë zgjedhjeve presidenciale të vitit 2016 sesa faktet e vërteta zgjedhore. Në këtë logjikë, marrësi i një lajmi të rremë mund të ndikohet për shkak të supozimeve, paragjykimeve apo përfshirjes emocionale në lajme. Duhet të kuptojmë gjithashtu madhësinë e "rrezikut" të përfshirë në marrjen e informacionit, pa kontrolluar burimet dhe vlefshmërinë e tij. Për këtë arsye, në këtë shkrim do të prezantohen pikëpamjet e mësuesve kandidatë të Departamentit të Arsimit Fillor të Universitetit të Maqedonisë Perëndimore mbi lajmet e rreme përmes hulumtimeve sasiore. Pjesëmarrësit përcaktojnë përmbajtjen e lajmeve të rreme dhe, në të njëjtën kohë, vërejnë nëse janë informuar nga studimet e tyre universitare për çështje të tilla. Për më tepër, propozohen mënyra për të rritur aftësitë e shkrim-leximit në media të