The use of AI in foreign language teaching at universities – one year later[1]

Simona Pecková, Zuzana Slobodová

Abstract: The paper deals with artificial intelligence in foreign language teaching, its potential, opportunities and also threats. The purpose of the study is to find out about the sentiment of foreign language teachers towards artificial intelligence, their experience and the extent to which they have already been trained in this field. In order to achieve these objectives, the authors adopted a mixed approach, where a questionnaire and interviews were used as research tools. Based on the results of the questionnaire survey, we can conclude that no dependence between age and sentiment towards AI has been proved. Also, there is no dependence between training provided by university and teachers sentiment towards AI. On the other hand, there is a dependence between training provided by the language department and teachers' sentiment towards AI. By now, most university language teachers have not received enough training from their employer and acquire their skills mainly through self-study. They would appreciate continuous training in AI and related fields.

Key words: artificial intelligence language teaching university pedagogy teacher training

Introduction

Artificial intelligence (AI) has been a part of our lives for years and decades now, so it's no wonder it has found its way into the field of education. This is evidenced by the growing number of publications dealing with this issue. Often we use various AI tools without realising that. AI certainly has a high potential to contribute to a higher quality of education at all levels. Students and educators use search engines, language translators, navigation, online video games and now chatbots almost daily. The impact of AI on education is undeniable and will undoubtedly increase in the future. But just as AI can help make life and work easier for educators and students, it is also important to recognise the pitfalls it brings with it.

Our paper looks at the use of AI in foreign language teaching at universities. We will discuss the characteristics of AI, the extent to which university language teachers are trained in AI, their sentiment regarding AI etc. Our article is entitled "The use of AI in foreign language teaching at universities – one year later", because the preparation of our work began in autumn 2023, i.e. approximately one year after ChatGPT (a large and now widely spread language model developed by OpenAI) was made available to the public. ChatGPT and other chatbots are an example of generative AI. According to Zhihan (2023) generative AI is a form of

---

AI that can autonomously generate new content, such as text, images, audio and video.

Theoretical background

It is difficult to define what AI is; several definitions are available in the literature. Long before 2022, various characteristics were already emerging. In his article Horváth (2023) mentions several definitions by different authors, e.g. Marvin Minsky looked at AI as a science that deals with the creation of machines or systems that will have the ability to solve tasks as a human would. Such an approach would be a manifestation of intelligence, according to Minsky. Another author, Silver, as cited by Horváth (2023), considers AI to be software that has the ability to write, update, and renew itself independently.

According to Encyclopedia Britannica (2021) (In: Son et al, 2023), artificial intelligence is the ability of computer systems to perform tasks that require human intelligence. Chatbot ChatGPT 3.5 characterised artificial intelligence as "a branch of computer science concerned with the development of systems capable of performing tasks that would normally require human intelligence. These systems are designed to analyse information, learn from experience, solve problems, and make decisions. The key characteristics of artificial intelligence are the ability to recognise patterns, learn, adapt to new situations and perform tasks that would traditionally be associated with human thought."[2]

An extensive study using data from Bibliometrix and Web of Science was published by Fidan and Kasimi (2023). In their paper, they examined linguistic articles that dealt with artificial intelligence. According to their findings, 1693 papers on artificial intelligence were published between 2013 and 2023. Their findings show an increase in the number of publications and also an increasing interest in artificial intelligence. A similar survey was also conducted by Huang et al. (2023). The authors' team examined papers published between 2000 and 2019, exploring how AI has been integrated into language learning. Similarly, they found that the frequency of studies on language learning using AI increased over the period. Interesting results have been presented by Jaleniauskienė (2023).

---

[2] There are two main types of AI: A narrower form of AI (Weak AI): this type of AI is designed to perform specific tasks and does not have the ability to go beyond its specific purpose. Examples include voice assistants, email spam filters, and limited image recognition systems. General type of AI (Strong AI): This is a form of AI that has the ability to understand, learn, and perform a wide range of tasks that would normally require human intelligence. Such a system would be able to solve diverse problems and adapt to new situations much like a human. Artificial intelligence uses a variety of methods and techniques, including machine learning, neural networks, deep learning, natural language processing, and others. Its applications are broad and include areas such as robotics, disease diagnosis, trend prediction, automation, autonomous vehicles and many more (OpenAI, 2023).

Also, a lot of attention is focused on AI in higher education in general (Crompton, 2023). The findings of this study show that in 2021 and 2022, publications rose nearly two to three times the number of previous years. The study shows that in the university environment, AI is mainly used for assessment and evaluation, predicting, intelligent tutoring and managing student learning.

If AI is used for the purpose of language learning and teaching, we can observe the following areas:

1. Natural language processing
   Natural language processing is concerned with natural language understanding (Pokrivčáková, 2019). It offers the possibility of machine translation, in which the source language is automatically converted into the target language (Son et al., 2023, 2–3). In recent years, we are witnessing a sharp increase in the quality of machine translation. As a result of this development, it seems that there is less employment for human translators and this situation will probably intensify in the near future. Nevertheless, court-appointed translators, whose job is to make sworn translations, and the various forms of authentication, are still in high demand.
   In a study by Chona et al. (2021) with South Korean university students investigated the use of machine translation as a reference tool for a second foreign language (L2). The results showed that the use of Google Translate helped less proficient students to demonstrate a higher level of writing proficiency that was similar to that of more proficient students. It was also found that machine translation helped learners to produce essays with a higher number of less frequent words, more complex words and better word order (Edmett et al., 2023). Artificial intelligence technology has greatly improved the level of machine translation. These tools include Google Translator, Translator Online, Foreign Word, WebTrance etc. (Pokrivčáková, 2019).

2. AI-enabled foreign language learning apps
   Online platforms that are used to teach foreign languages with the help of AI incorporate automatic speech recognition, gamification features, speech generation etc. Examples are applications such as Duolingo, Busuu, Speexx, Babbel, Memrise, Magiclingua (Pokrivčáková, 2019). Authors of the research done for the British council found that while playing, students have an opportunity to enrich their vocabulary and understand the context through the game (Edmett et al., 2023).

3. Automated writing evaluation
   Automated writing evaluation is a tool that provides students with feedback on their written work, giving them valuable information about the types of errors they have made in the text. An example of such a tool is e.g. grammarly.com, virtualwritingtutor.com (Son et al, 2023). Pokrivčáková (2019) adds examples

of writing helpers – ProWriting Aid, Textio, AI Writer, Textly AI and Essaybot. The study by Dizon and Gayed (2021) in a university setting found that students who used the artificial intelligence-driven Grammarly tool made fewer grammatical errors and wrote with more varied lexical variability than students who did not use this option. A study by Nazari et al. (2021) also investigated the use of the Grammarly tool for the English language. They found positive results, not only in writing but also in emotional engagement.

4. Chatbots

A chatbot is an application that communicates with users via chat, simulating human conversations by asking and answering various questions using text. Interest in using chatbots is high. Examples are GenieTutor, which focuses on specific language areas, Mondly (https://app.mondly.com/) has learned a number of languages. ChatGPT (https://chat.openai.com/), which offers detailed answers to assignments, has generated a lot of interest. According to Klimova, Pikhart and Al-Obaydi (2024) "Chatbots are among the most important emerging developments in language learning, or at least they may be. They can be used in the classroom or even outside to assist students in developing their speaking, reading, writing, and listening skills, among other language-related talents" (Gayed et al., 2022 in Klimova, Pikhart, Al-Obaydi, 2024).

Baker and Smith (2019) see enormous potential in AI for education. As for the future, the authors state that it is uncertain and also depends on our attitude. In their study, they list 5 negative aspects of education: "1. Teachers burdened with excessive workload, affecting wellbeing, retention and recruitment, 2. 'one-size-fits-all'learning, with inflexible learning pathways, 3. narrow assessment inhibiting teaching and learning, 4. difficulty of sharing insights between schools and colleges, 5. inconsistency of education provision and lack of social mobility." In all of these problems, Baker and Smith (2019) see the solution in AI. They say that in the realm of foreign language education, instructors must reassess their teaching methodologies, particularly regarding assessment techniques, as the implementation of ChatGPT and other AI tools allows students to effortlessly produce logically structured and professionally rigorous essays (Klimova, Pikhart, Al-Obaydi, 2024). Chatbots also serve as a valuable tool for students to swiftly obtain dependable responses to general concept-based inquiries, as well as aiding in the improvement of their writing abilities when effectively guided by their educators (Kasneci et al., 2023 in Klimova, Pikhart, Al-Obaydi, 2024). Firat (2023 in Klimova, Pikhart, Al-Obaydi, 2024) outlined several educational potentials of ChatGPT, including personalised learning to cater to individual student needs, real-time feedback on task performance, convenient and flexible learning opportunities, and the promotion of open educational resources and self-assessment of progress.

5. Tools to improve pronunciation

These tools work on the basis of voice recognition. Here, a good example

would be Alexa – a personal voice assistant which can be used to improve pronunciation. Dizon and Tang (2022) found that besides improvement of pronunciation, such a conversation can also have other benefits for students, such as making the learning process more enjoyable.

To sum up, using technologies in teaching and learning has positive as well as negative effects (Arini, 2022). Among the positive ones, we can name access to a wide range of materials. Also, courses become more accessible to students in remote areas. The cost of such courses is lower than the traditional face-to-face classes. Using AI in language classes enables a more tailored learning. Moreover, while learning languages in various AI-assisted courses, learners acquire additional skills (IT skills, teamwork etc.).

AI-assisted language courses contribute to strengthening the student role, which supports the idea of autonomy and self-regulation in the process of learning (Al-Hawamleh, 2022). The way people learn languages changes with students no longer attending timetabled classes, but preferring to work in self-access mode.

On the other hand, we can also observe negative phenomena, such as technology addiction, information overload, stress associated with IT, dehumanisation in learning, loneliness and social phobia. Thus, focus on mental health remains one of the key issues of modern pedagogy. Keeping a reasonable balance between technologies and other areas of life is crucial. Also, hybrid courses could be a win-win solution.

Use of AI tools also presents risks, such as privacy breaches and dissemination of inaccurate information (Klimova et al., 2023). This concern is particularly relevant with the emergence of ChatGPT (Klimova, Pikhart, Al-Obaydi, 2024) and other chatbots.

Methodology

Research in the field of pedagogy and other social science fields is characterised by the complexity of the investigated phenomena. These are not always easy to measure, but above all they are burdened by the constant variability of factors that influence them (e.g. variability over time, fluctuations depending on a person's experience and the characteristics of their personality, etc.). We therefore used both quantitative and qualitative research methods to obtain research data. The reason for choosing this mixed research design is the fact that both approaches complement each other. The quantitative approach prevents the researcher from taking a purely subjective view of the investigated phenomenon, while the qualitative approach, on the other hand, helps to clarify the results of quantitative research, it allows one to know and understand the causes of the investigated phenomena. Our empirical investigation is therefore designed

as qualitative-quantitative (Pelikán, 1998, Nunan, 2013) and the tools used are a questionnaire and interviews.

The aim of our questionnaire is to find out about the participants' sentiment towards AI, the extent to which teachers have already been trained in this field and if or how they use the tools of AI in foreign language teaching.

The final version of the questionnaire was preceded by piloting – we approached a sample of 21 university lecturers who teach foreign languages to complete a pilot study (as recommended by, among others, Gavora, 2000). We administered the pre-survey in January 2024, when we received 21 relevant responses. By piloting, we verified the comprehensibility of the questionnaire and also the effectiveness of the items. After expert consultation on the statistical processing of the results, we distributed the final version of the questionnaire to foreign language teachers at universities in the Czech Republic and the Slovak Republic.

The questionnaire was anonymous and created for the purpose of our paper. We sent out the final questionnaire at the end of January 2024 and were collecting the data until the end of April 2024.

We used both open-ended and closed-ended questions in the questionnaire; the total number of items is 17. The first three items were of identifying nature. In the first item, we asked about the gender of the participants: 78.4% were female, 21.6% were male. The second item asked about the age of the respondents: 17,6% were under 35, 24.2% were between 36–45, 39.9% were between 46–55 and 18.3% were 56 and over. The last identifying item was the country in which the teachers work: 27.5% of the respondents were from the Czech Republic and 72.2% from the Slovak Republic.

The research sample consisted of 153 foreign language university teachers ($n = 153$) whose workplaces are members of CASALC (Czech and Slovak Association of Language Centers).

The number of respondents may vary in individual questions. Individual respondents answered some questions verbally instead of choosing from options. Their answers are sometimes valuable and useful for us, but they could not be included in the percentage reports. In the analytical part of the paper, we indicate the number of respondents (n) for each question.

First, the teachers were asked for cooperation on the survey through the CASALC newsletter. Later, to obtain more responses, we addressed the language departments directly via email asking them and their staff to fill the questionnaire.

The questionnaire was written in the Czech language which is perfectly intelligible for speakers of Slovak as well, given the common history of the two countries.

Here is the complete questionnaire (including the introduction where the project was presented) translated into English:

The use of AI in foreign language teaching at universities – one year later

Dear colleagues, it has been about a year since the spread of generative artificial intelligence (AI) tools to the public. That is why we are asking for your cooperation in research that investigates the use of artificial intelligence tools (chatGPT, Bing, etc.) in the teaching of foreign languages at universities in the Czech and Slovak Republic. Completing the questionnaire will take no more than 3 minutes. Thank you! Dr. Simona Pecková (Pan-European University, Prague) and Dr. Zuzana Slobodová (University of Prešov in Prešov)

Gender
female
male

Age
35 years and less
36–45
46–55
56 and over

1. *How was/is your training in the field of artificial intelligence organized at your university?*
   The university where I work provided me with sufficient training.
   The university where I work only provided me with basic training.
   The university where I work only issued a written instruction for the use of artificial intelligence, there was no training for teachers.
   The university where I work has not provided any support to educators in the field of artificial intelligence.
   Other:

2. *Have you been trained by your language department in the field of using artificial intelligence for teaching foreign languages?*
   The language department where I work provided me with sufficient training.
   The language department where I work only provided me with basic training.
   The language department where I work only issued a written instruction for the use of artificial intelligence, the training of teachers did not take place.
   The language department where I work did not provide any support in the field of artificial intelligence to the teachers.
   Other:

3. *Where do you get skills for working with AI tools?*
   on-the-job training
   paid courses outside the workplace
   self-study from freely available sources
   I have not yet had the opportunity to educate myself in this area
   Other:

4. *Do you use artificial intelligence to create learning materials?*
   yes
   no
   Other:

5. *Do you use artificial intelligence directly in language teaching? If so, please specify the areas.*
   yes, in teaching grammar
   yes, in teaching vocabulary
   yes, in teaching pronunciation

yes, in teaching speaking
yes, in teaching listening
yes, in teaching writing
yes, in teaching reading
yes, in teaching realia
yes, to develop other skills
I do not yet use artificial intelligence for teaching foreign languages
Other:

6. *Do you use artificial intelligence to assess student work?*
    yes
    no
    Other:

7. *Do you pay attention to the prevention of fraud caused by artificial intelligence when teaching writing in a foreign language?*
    yes
    no
    Other:

8. *Do you give students tips on how to use artificial intelligence for self-study of foreign languages?*
    yes
    no
    Other:

9. *Do you use artificial intelligence in your research activities (e.g. for working with documents, etc.)?*
    yes
    no
    Other:

10. *Do you use artificial intelligence tools to reduce your administrative burden?*
    yes
    no
    Other:

11. *What is your current position on the use of artificial intelligence in foreign language teaching at universities?*
    Negative, I see more of a threat in artificial intelligence.
    Positive, I see more of an opportunity in artificial intelligence.
    I don't have enough knowledge and experience in this area to comment on it.
    Other:

12. *Do you use AI in your classes? If so, please provide examples of such activities:*
    (open question)

13. *Where do you see the biggest AI threats?*
    (open question)

Here is a space for your comments:

The questionnaire was made in Google Forms. The received data were processed in Google Sheets. Three of the questions were processed by the online statistical calculator called Statistics Kingdom (www.statskingdom.com).

After the completion of the quantitative part of our research, the qualitative part followed. We managed to conduct two interviews with university foreign language teachers. Respondents were presented with the results of a quantitative survey and then asked the following questions:

1. *The results of the pilot showed that most of the Czech and Slovak universities, which were included in our survey, did not provide sufficient training for teachers in the field of AI. Do you see a problem with that?*
2. *How does your university/department approach training educators in the field of AI? Do you know the reasons for this approach?*
3. *How, in your opinion, should the training of educators in the field of AI ideally take place?*
4. *Do you feel competent enough in the field of AI for your job?*

It is therefore a semi-structured interview, we had prepared only very general questions for the respondents, with the interview being left open-ended.

Results and discussion

The results overview follows the structure of our work. First, we will present what we have discovered in the quantitative part. Analysis of the qualitative part will follow.

Quantitative part:

As we have already said, female respondents prevail in our study (78.4% compared to 21.6% of male respondents. Age groups go as follows: 17.6% of the respondents were under 35, 24.2% were between 36–45, 39.9% were between 46–55 and 18.3% were 56 and over.

The results of the following questions are either expressed in percentage or we used the statistical method of chi-square to verify if there is a dependence between respondents' age and their sentiment towards AI, and the impact of training on teachers' sentiment towards AI.

Age and sentiment towards AI

To explore the dependence between age and sentiment towards AI, we used the statistical method of chi-square (Škaloudová, 1998). For this purpose, we divided the participants ($n = 147$) into two major groups: the younger ones, i.e. 45 and less (41.9%) and the older ones, i.e. 46 and more (58.1%).

Research Question 1: Is there a statistically significant dependence between age and the sentiment towards artificial intelligence in foreign language teaching?

H0: There is no statistically significant dependence between age and the sentiment towards artificial intelligence in foreign language teaching.

HA: There is a statistically significant dependence between age and the sentiment towards artificial intelligence in foreign language teaching.

Analysis within the online statistical calculator (www.statskingdom.com) gave us the following results:

The p-value equals 0.06036. Since p-value$> \alpha$, H0 is accepted on the significance level 0.05%. That means that no dependence between age and sentiment towards AI has been proved.

The results of our study indicate that age has no impact on teachers' sentiment towards AI, which seems to challenge the usual stereotypes regarding the attitude of elderly people to technologies.
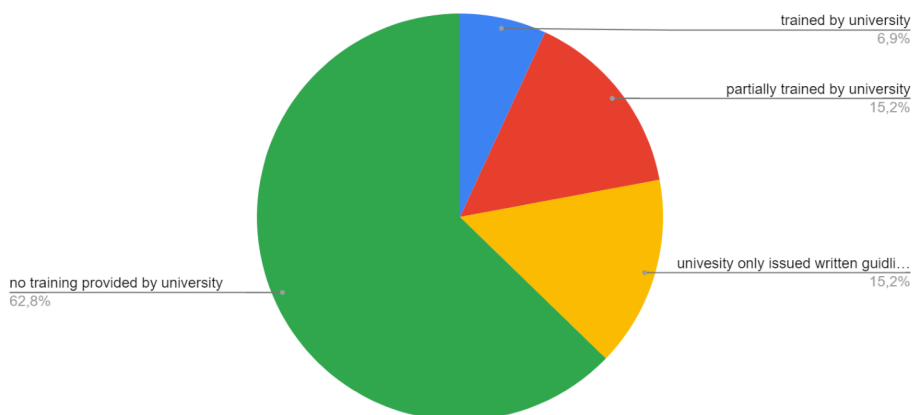
Training provided by university

Fig. 1: *Training in AI provided by university*

Figure 1 shows that 6.9% of respondents were trained by university, 15.2% of them were only partially trained. 15.2% of them said their university only issued written guidelines regarding AI and 62.8% of respondents said their university provided no training at all.

Additional comments made by respondents:

Usually, training is offered to employees, but it is not compulsory. So the fact that a teacher has not gone through a training provided by university does not mean the training was not offered.

Again, to see whether there is dependence between training provided by university and teachers' ($n = 145$) sentiment towards AI, we used the statistical method chi-square (Škaloudová, 1998).

Research Question 2: Is there a statistically significant dependence between training in AI delivered by universities to language teachers and their sentiment towards artificial intelligence?

H0: There is no statistically significant dependence between training in AI delivered by universities to language teachers and their sentiment towards artificial intelligence.

HA: There is a statistically significant dependence between training in AI delivered by universities to language teachers and their sentiment towards artificial intelligence.

Analysis within the stated online statistical calculator gave us the following results:

The p-value equals 0.6169. Since p-value$> \alpha$, H0 is accepted on the significance level 0.05%. There is no dependence between training provided by universities and teachers' sentiment towards AI.

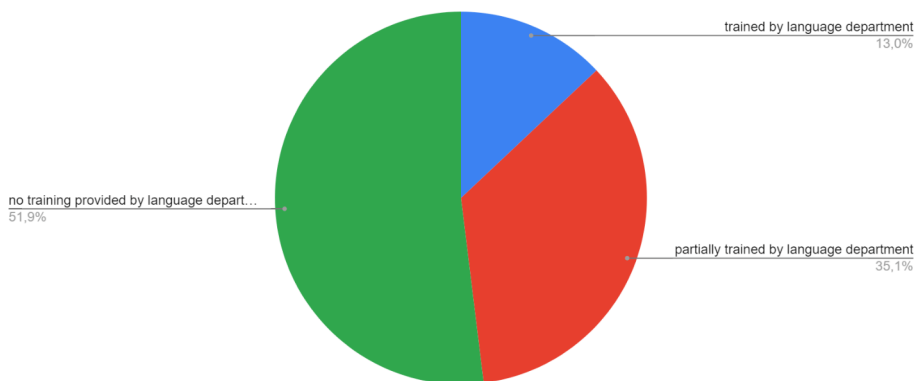## Training provided by language department

Fig. 2: *Training in AI provided by the language department*

Figure 2 shows that 13% of our respondents have been trained by their language department and 35.1% of them received a partial training from the language

department. The rest of them (51.9%) received no training from the language department.

Additional comments made by respondents:

No real training, but rather a session for peer experience sharing was organised.

Again, we used the statistical method chi-square (Škaloudová, 1998) to see whether there is dependence between training provided by the language department and teachers' (n = 146) sentiment towards AI.

Research Question 3: Is there a statistically significant dependence between training in AI delivered by language departments to language teachers and their sentiment towards artificial intelligence?

H0: There is no statistically significant dependence between training in AI delivered by language departments to language teachers and their sentiment towards artificial intelligence.

HA: There is a statistically significant dependence between training in AI delivered by language departments to language teachers and their sentiment towards artificial intelligence.

Analysis within the stated online statistical calculator gave us the following results:

The p-value equals 0.02063. Since p-value$< \alpha$, H0 is rejected on the significance level 0.05%. There is dependence between training provided by the language department and teachers' sentiment towards AI.

Thus, it seems that if university language teachers receive training by the language department, they may develop a more positive sentiment towards AI.

However, on the significance level 0.01%, p-value$> \alpha$, and so H0 is accepted. That means that on the significance level 0.01% we could not observe dependence between training provided by the language department and teachers' sentiment towards AI.

Resources used by teachers:

Figure 3 shows that teachers mostly get their skills in AI through self-study and they work with materials which are freely available on the Internet (66.3%). 8.9% of the respondents draw their skills from the training provided by their employer and 2.4% rely on what they have learned in paid courses outside the workplace.
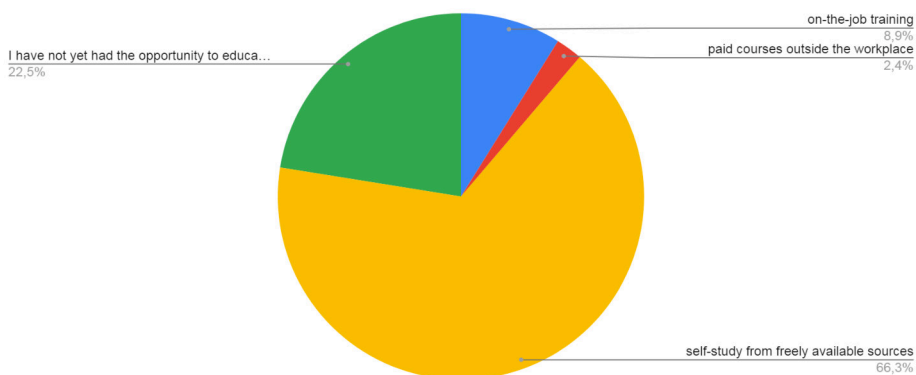
Fig. 3: *Resources used by teachers*

The rest of them have had no opportunity to educate themselves in the area of AI for language teaching.

No additional comments were made by respondents.

AI for production of materials

According to our survey, 43.1% of respondents use AI to produce their teaching materials and 49% do not. Some individual respondents use it only rarely or are just learning how to do that. No other additional comments were made by respondents.

AI for teaching grammar, vocabulary, pronunciation, speaking, listening, writing, reading and other

Figure 4 displays the activities language university teachers use AI for. Slightly more than one third (36.5%) of the respondents do not use AI for any teaching activities yet.

Additional comments made by respondents:

I am not planning to do so.
I only use AI to get some inspiration and I often adjust the material I receive to my own needs.
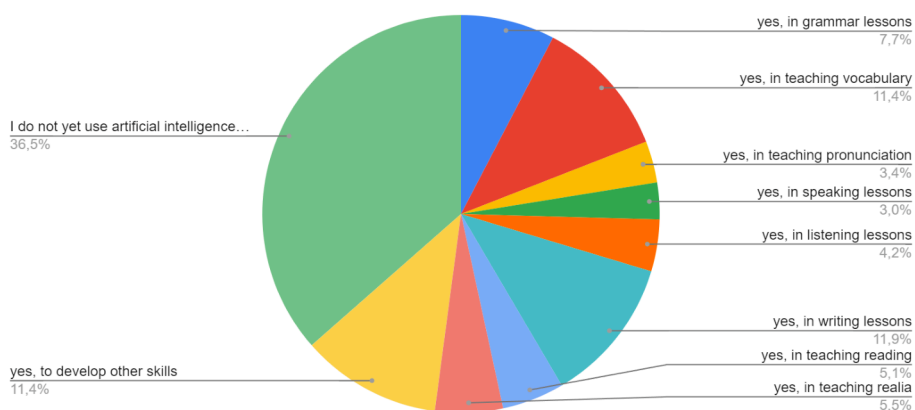I use it in courses of translation.

yes, in grammar lessons
7,7%

yes, in teaching vocabulary
11,4%

yes, in teaching pronunciation
3,4%

yes, in speaking lessons
3,0%

yes, in listening lessons
4,2%

I do not yet use artificial intelligence…
36,5%

yes, in writing lessons
11,9%

yes, in teaching reading
5,1%

yes, in teaching realia
5,5%

yes, to develop other skills
11,4%

Fig. 4: *Areas where teachers already use AI*

AI for student assessment

Only 8.5% of respondents use AI for student assessment.

Additional comments made by respondents:

No but I would like to do so if I knew how.

AI and plagiarism prevention

More than a half (55.6%) said they pay attention to the prevention of fraud caused by AI. More than a third (35.3%) of respondents do not. Some respondents provided an extended description, where they explained the details.

Additional comments made by respondents:

With generative AI, plagiarism cannot really be prevented.
I try to help students develop their capacity for critical thinking.
I allow students to use generative AI, but they have to assess the quality of their own prompts.
I encourage them to evaluate the quality of the text generated by AI.

AI and language self-study

41.8% of respondents try to share with their students some ideas on how to use AI for self-study. The rest of respondents said they did not do that.

No additional comments were made by respondents.

AI and research and publication activities

Only a minority (37.3%) of respondents use AI in order to facilitate their research activities. On the other hand, 58.2% of respondents said they did not do so. Some of them further developed their answer explaining that they would like to use AI to make their research and publication activities more efficient but did not have the skills to do so.

Additional comments made by respondents:

Not yet but I would like to do so if it can be helpful.

AI for lowering administrative burden

Only one fifth (20.9%) of respondents said they use AI in order to lower the administrative burden. Three quarters of respondents (75.2%) said they did not do so.

Additional comments made by respondents:

I would try to do that if I knew how.

Teachers' sentiment towards AI in language teaching and learning

Negative, I see more of a threat in artificial intelligence
13,4%

I don't have enough knowledge and experience in this area…
38,5%

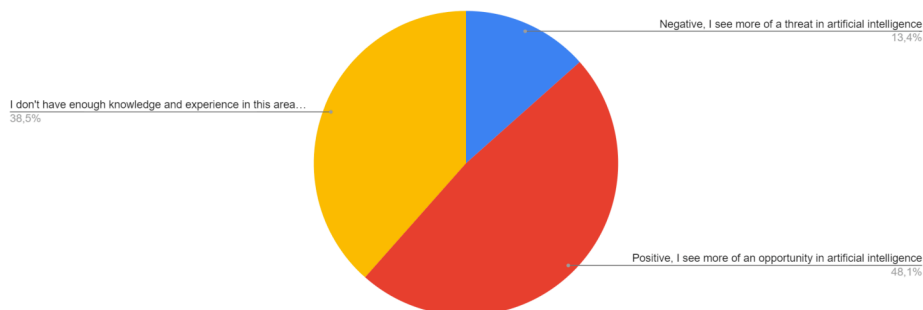Positive, I see more of an opportunity in artificial intelligence
48,1%

Fig. 5: *Teachers' sentiment towards AI*

Figure 5 shows that almost a half (48.1%) of respondents ($n = 147$) have a positive sentiment towards AI. Conversely, 13.4% of respondents have a negative sentiment towards AI and more than a third (38.5%) said they do not have enough knowledge to say that. The remaining respondents provided an extended explanation such as:

I have mixed feelings towards AI.
It depends on the kind of activities AI is used for.

Use of AI in classes of foreign languages – examples of activities (open question)

When asked to give an example of use of AI in classes of foreign languages, the respondents gave us the following ideas:

Using an AI-generated text as an inspiration for writing tasks.
Chatting with ChatGPT in class in the target language.
Creating dialogues in ChatGPT.
Asking ChatGPT for correcting one s text.
For plagiarism check.
For creating texts that we will read with my students.
For creating grammar practising materials.
For paraphrasing texts.
I convert texts into spoken language and vice versa.
Correction of students' texts.
To facilitate understanding of recordings, we use AI-generated subtitles in YouTube.
Development of stylistic skills.
Reasonable usage of internet translators.
I generate pictures that we use in language classes.
Production of grammar exercises.
We share experiences with students.
Comparing students' own texts with AI-generated texts.
Detecting errors made by AI-generated texts.
Evaluation of texts created by AI.
I only use AI to prepare my classes.
I am only planning to do so.

Despite the very limited amount of training Czech and Slovak university language teachers have received from their employers, we can see many of them are very creative and try to cope with the new reality of their job.

Threats of AI (open question)

These are the threats of AI as perceived by university language teachers who participated in our survey:

Loss of motivation, plagiarism, mistakes in texts generated by AI, loss of critical thinking, negative impact on language, oversimplification of language, excessive relying on AI, loss of creativity, misuse of AI, teacher replaceability, inability to

think independently, deep fake, loss of human contact, loss of independence, superficiality, inability of people to use AI properly, inability to critically evaluate resources, uncontrollable development of AI, infomania, even greater reliance on technology to do our creative thinking for us; a further step into an ever more sterile and mind-numbing world in which our main priority is always to make things easier for ourselves.

Respondents' other comments

Generally, in their final comments, the respondents express the ideas that:

There is a need for lifelong learning in AI.
It is difficult to foresee how AI will develop.

Qualitative part

After completion of the quantitative part, we interviewed two university language teachers, one from the Slovak Republic and the other one from the Czech Republic. We adapted the form of the interview to the possibilities of the respondents. Various forms of interviewing were offered:

a) personal form with recording

b) video conference meeting with recording

c) sending the questions in advance in writing, the respondent answers the questions orally and sends an audio recording or converts the audio recording directly into a written text in a computer program

d) sending questions in advance in writing, the respondent will answer the questions in writing

One of the respondents chose the fourth method (sending their written answers to the questions asked). The second respondent chose the third option (she sent a text file where her oral answers were converted to text by means of a computer program).

This is the summary of ideas we received from these interviews:

Teacher training in AI is extremely important in today's educational landscape, as it equips educators with the skills and knowledge needed to keep pace with their students, who are often more adept at using new technologies. The rapid integration of AI in various sectors, including education, necessitates that teachers are not left behind. However, universities currently do not pay enough attention to teacher training in AI. This neglect can be attributed to several factors, including

the fast development in AI technology and a lack of capacities within educational institutions to provide adequate training.

Universities seem to be taken aback by the swift advancements in AI, struggling to incorporate these changes into their teacher training programs. This oversight has significant implications for the quality of education that students receive. Teachers, who are on the front lines of implementing educational technologies, express a clear need for regular and systematic training in IT, including AI. They would greatly benefit from a structured approach that includes in-house training sessions, lectures, workshops, and access to webinars and other online materials.

An ideal training program should be comprehensive, covering both theoretical knowledge and practical applications of AI. It is not enough to understand the principles of AI; teachers must also be able to apply these principles in their daily teaching practices. Additionally, ethics should be a key focus area in AI training. Understanding the moral and ethical implications of AI usage is crucial in fostering a responsible approach to technology in education. This ethical training will help teachers navigate the complex landscape of AI with a critical and informed perspective.

The disparity in confidence levels among teachers regarding their competence with AI is another issue that needs addressing. Some teachers feel proficient with AI technologies, while others feel overwhelmed and underprepared. This gap can lead to an unequal learning experience for students, depending on the AI competence of their teachers. It is essential that teachers become capable of helping their students with AI, rather than the other way around. Self-study alone is not sufficient for this purpose; a more active and supportive approach from universities is necessary.

A proactive stance from universities in providing comprehensive AI training for teachers will ensure that they are well-equipped to navigate the evolving educational environment and support their students effectively. This training should not be a one-time event but rather an ongoing process that evolves alongside technological advancements. Continuous professional development in AI will help teachers stay current and competent.

Moreover, we must accept that AI is here to stay, and all of us need to learn how to work with it. In the field of applied linguistics, AI holds significant potential for teaching, particularly in the production of materials and assessment. AI can assist in creating personalised learning materials, automating administrative tasks, and providing detailed analytics on student performance. However, the active participation of learners will always be the key factor in the learning process, meaning AI has less potential for direct learning applications. The human element in edu-

cation remains irreplaceable, and AI should be seen as a tool to enhance, rather than replace, traditional teaching methods.

Conclusion

The results of the study indicate that university teachers of languages, regardless of their age, perceive artificial intelligence as an opportunity and they are interested in the ways the tools of AI can be used in language teaching and learning. Another finding is that most of the respondents in the Czech Republic and the Slovak Republic have not received sufficient training in this field from their institutions and are therefore self-educated.

Czech and Slovak university language teachers who participated in our survey use AI rather for preparation of teaching materials than for lowering their administrative burden or for making their publication activities more efficient.

Threats expressed by teachers include concerns about plagiarism, cheating, loss of motivation to learn foreign languages, increased dependence on IT technologies etc. Teachers participating in our survey expressed their wish to be continuously trained in technologies necessary for their work, including AI. They think training in AI should be approached as a life-long learning process.

When preparing the concept of teacher training in AI, we have to remember that individual people have different needs and preferences. Dudeney and Hockly (2007) say that the pace of change will vary for different groups of teachers. Some groups will move very quickly to adopt new technologies and new habits while others will remain largely unaffected by technological changes. Klímová (2024) emphasises the fact that both teachers and students have to upskill their competencies to handle the current advancements in AI technology. Besides technical skills, we also have to develop teachers' and learners' capacity for critical thinking, as this is the key to a proper use of AI. Also, ethical issues must never be forgotten (Hockly, 2023).

In the context of the implementation of AI in the education sector, there is a need for deeper research in this area. Although English language teachers currently have access to online resources on the use of AI in the classroom (e.g. blogs, webinars, 'how-to' guides), there is a need for more in-depth and intensive research regarding the opportunities, issues and challenges that AI brings (Edmett et al., 2023).

Artificial intelligence is making its way into all areas of our lives. The teaching of foreign languages at universities in the Czech and Slovak Republics is no exception. Ultimately, the integration of AI into education is inevitable, and teacher training must reflect this reality. By investing in comprehensive AI training pro-

grams, universities and other educational institutions can ensure that their educators are prepared to meet the challenges and opportunities presented by this technology. This investment will return in the form of a more informed, competent, and confident teaching workforce, capable of using AI to improve educational outcomes for all students. Finally, today's young generation, also referred to as "digital natives" (Prensky, 2007) and technologies cannot be separated.

Bibliography

Al-Hawamleh, S. M. (2022). Online learning and Self-Regulation Strategies: Learning Guides Matter. *Education Research International.* 2022, 1–8. DOI: https://doi.org/10.1155/2022/4175854.

Arini, D. N., Hidayat, F., Winarti, A., & Rosalina, E. (2022). Artificial intelligence (AI)-based mobile learning in ELT for EFL learners: The implementation and learners' attitudes. *International Journal of Educational Studies in Social Sciences*, *2*(2), 88–. https://doi.org/10.53402/ijesss.v2i2.40.

Baker, T., & Smith, L. (2019). *Educ-AI-tion Rebooted? Exploring the future of artificial intelligence in schools and colleges.* Dostupné z: https://media.nesta.org.uk/documents/Future_of_AI_and_education_v5_WEB.pdf

Crompton, H. & Burke, D. (2023). Artificial intelligence in higher education: The state of the field. *International Journal of Educational Technology in Higher Education*, 20, 22 (2023). https://doi.org/10.1186/s41239-023-00392-8.

Dizon, G., Gayed, J. (2021). Examining the impact of Grammarly on the quality of mobile L2 writing. *The JALT CALL Journal*, 17(2), 74–92. https://doi.org/10.29140/jaltcall.v17n2.336.

Dizon, G., Tang, D., & Yamamoto, Y. (2022). A case study of using Alexa for out-of-class, self-directed Japanese language learning. *Computers and Education*, 3, 100088. https://doi.org/10.1016/j.caeai.2022.10008.

Dudeney, G., Hockly, N. (2007). *How to Teach English with Technology*. Pearson.

Edmett, A., Ichaporia, N., Crompton, Crichton, R. (2023). *Artificial intelligence and English language teaching: Preparing for the future.* London: British Council. https://doi.org/10.57884/78ea-3c69.

Fidan, Ş., & Kasimi, Y. (2023). An Investigation into Artificial Intelligence (AI) in the English as a Foreign Language (EFL) Context. *International Journal of Educational Spectrum (IJES),* Volume: 5 – Issue: 2, 269–280.

Gavora, P. (2000). *Introduction to pedagogical research.* Paido.

Hockly, N. (2023). Artificial Intelligence in English Language Teaching: The Good, the Bad and the Ugly. *RELC Journal*, *54*(2), 445–451. https://doi.org/10.1177/00336882231168504

Horváth, J. (2023). Analytický pohľad na skúsenosti Slovákov s využitím umelej inteligencie. *Teoretické a praktické východiská relačného marketingu v dimenzii nákupného správania a preferencií spotrebiteľov v podmienkach elektronickej komercie. Nekonferenčný vedecký zborník recenzovaných štúdií.* Prešov: Bookman s. r. o.

Huang, X., & Zou, D., & Cheng, G., & Chen, X., & Xie, H. (2023). Trends, Research Issues and Applications of Artificial Intelligence in Language Education. In: *Educational Technology & Society*, 26(1), 112–131.

Jaleniauskienė, E. (2023). Artificial Intelligence in Language Education: A Bibliometric Analysis. *Sustainable Multilingualism*, vol. 23, no. 1, pp. 159–194. https://doi.org/10.2478/sm-2023-0017.

Klímová, B., Pikhart, M., Al-Obaydi, L. (2024). Exploring the potential of ChatGPT for foreign language education at the university level. *Frontiers in psychology*. 15 (April), Article number: 1269319. ISSN 1664-1078.

Nazari, N., Shabbir, M. S. and Setiawan, R. (2021). Application of Artificial Intelligence powered digital writing assistant in higher education: randomized controlled trial. *Heliyon*, 7(5), Article e07014. https://doi.org/10.1016/j.heliyon.2021.e07014.

Nunan, D. (2013). *Research Methods in Language Learning.* Cambridge University Press.

OpenAI. (2023). *Umelá inteligencia (UI) je oblasť…* [Text]. ChatGPT. https://www.openai.com/

Pelikan, J. (1998). *Základy výzkumu pedagogických jevů.* Karolinum.

Pokrivčáková, S. (2019). Preparing teachers for the application of AI-powered technologies in foreign language education. *Journal of Language and Cultural Education,* 7 (3), 135–153.

Pokrivčáková, S. (2022) Teacher Trainees' Attitudes towards Integrating Chatbots into Foreign Language Classes, *INTED2022 Proceedings*, pp. 8294–8302.

Prensky, M. (2007). How to Teach with Technology: Keeping Both Teachers and Students Comfortable in an Era of Exponential Change. *Emerging Technologies for Learning*, 2, 40–46.

Son, J.-B., & Ružić, N., & K., & Philpott, A. (2023). Artifical intelligence technologies and applications for language learning and teaching. *Journal of China Computer-Assisted Language Learning.* Volume 3, Issue 1, 1–19. Dostupné z: https://research.usq.edu.au/download/7e191381e3e1c3623fa03bbfb930176dd64e03f6892f8c7192409285fa5e48ac/599422/Son_etal_AI_JCCALL_2023_online.pdf

Škaloudová, A. (1998). *Statistika v pedagogickém a psychologickém výzkumu*, Karolinum.

Zhihan, L. (2023). Generative artificial intelligence in the metaverse era, *Cognitive Robotics*, Volume 3, Pages 208–217, ISSN 2667-2413, https://doi.org/10.1016/j.cogr.2023.06.001.

Authors

Mgr. Simona Pecková, MBA, Ph.D., e-mail: simona.peckova@peuni.cz, peckova.simona@email.cz, Panevropská univerzita, Katedra cizích jazyků, Spálená 76/14, 110 00, Prague 1, Czech Republic
In 2009, she completed her master's degree in teaching English and French at the Faculty of Education of Charles University. In 2015, she defended her dissertation entitled "Practice enterprise as a means of foreign language acquisition" there. In 2011–2012, she completed a bilingual postgraduate course in business management (University of Economics in Prague in cooperation with Université Jean Moulin, Lyon 3). In her research, she deals with the effectiveness of the teaching process, foreign language learning strategies, student autonomy, academic English, well-being at school, university pedagogy, new trends in education etc.

Mgr. Zuzana Slobodová, PhD., e-mail: zuzana.freiheit@gmail.com, Prešovská univerzita v Prešove, Katedra interkultúrnej komunikácie, Konštantínova 16, 08001 Prešov, Slovak Republic
She studied Slovak and German language and literature at the Faculty of Humanities and Natural Sciences at the Prešov University in Prešov (2002–2007). In 2012, she completed her doctoral studies at the Faculty of Arts of the Prešov University in Prešov (Slavic languages and literatures). Since 2014 she has worked as an assistant professor at the Department of Intercultural Communication, Faculty of Management, Economics and Business, Prešov University in Prešov. In her scientific activities, she focuses on dynamic processes in Slavic languages, comparative research of Slavic and Germanic languages and teaching German with an economic focus.