OPPORTUNITIES AND CHALLENGES IN AI-ASSISTED LANGUAGE TEACHING: PERCEPTIONS OF PRE-SERVICE EFL TEACHERS

YAPAY ZEKA DESTEKLİ DİL ÖĞRETİMİNDE FIRSATLAR VE ZORLUKLAR: YABANCI DİL ÖĞRETMEN ADAYLARININ ALGILARI

Araştırma Makalesi

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Abstract

The integration of Artificial Intelligence (AI) into foreign language education has transformed how languages are taught and learned, offering adaptive and personalized learning experiences. This study explores the perceptions of pre-service teachers regarding AI applications in language teaching, aiming to identify both the advantages and challenges these technologies present in educational contexts. Using a qualitative research methodology, semi-structured interviews were conducted with 17 pre-service English language teachers, who provided insights into their experiences with AI tools like ChatGPT, Google Assistant, and Grammarly. The findings revealed four primary themes: frequency of AI usage, positive impacts, negative impacts, and applications in language teaching. Pre-service teachers highlighted time-saving, convenience, and enhanced access to information as significant benefits of AI, while expressing concerns over issues like job displacement, dependency on technology, and data privacy. Additionally, participants acknowledged the potential of AI to support individualized learning but raised concerns about equity in access and the risk of reduced critical thinking skills. This study contributes to the growing literature on AI in education, offering insights to inform teacher education programs and educational policies to foster effective and ethical AI integration in language classrooms.

Keywords: Artificial Intelligence, foreign language education, personalized learning, teacher education.

Özet

Yapay zekânın yabancı dil eğitimine entegrasyonu, dil öğretimi ve öğrenimini dönüştürerek uyarlanabilir ve kişiselleştirilmiş öğrenme deneyimleri sunmaktadır. Bu çalışma, hizmet öncesi öğretmenlerin dil öğretiminde yapay zekâ uygulamalarına ilişkin algılarını inceleyerek, bu teknolojilerin eğitim bağlamında sunduğu hem avantajları hem de zorlukları belirlemeyi amaçlamaktadır. Nitel araştırma yöntemi kullanılarak, ChatGPT, Google Asistan ve Grammarly gibi yapay zekâ araçlarıyla ilgili deneyimlerine ilişkin algılarını sunan 17 hizmet öncesi İngilizce öğretmeniyle yarı yapılandırılmış görüşmeler yapılmıştır. Bulgular dört temel temayı ortaya çıkarmıştır: Yapay zekâ kullanım sıklığı, olumlu etkiler, olumsuz etkiler ve dil öğretiminde uygulamalar. Öğretmen adayları, yapay zekânın zaman kazandırma, pratiklik ve bilgiye kolay erişim gibi faydalarını vurgularken; iş kaybı, teknolojiye bağımlılık ve veri gizliliği gibi konularda endişelerini dile getirmişlerdir. Katılımcılar ayrıca yapay zekânın kişiselleştirilmiş öğrenmeyi destekleme potansiyelini kabul etmiş ancak erişim eşitsizliği ve eleştirel düşünme becerilerinin azalması riskleri konusunda endişelerini belirtmişlerdir. Bu çalışma, eğitimde yapay zekâ üzerine büyüyen literatüre katkıda bulunarak, dil sınıflarında etkili ve etik yapay zekâ entegrasyonunu teşvik etmek için öğretmen eğitim programlarını ve eğitim politikalarını bilgilendirecek fikirler sunmaktadır.

Anahtar Kelimeler: Yapay zekâ, yabancı dil eğitimi, kişiselleştirilmiş öğrenme, öğretmen eğitimi.

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INTRODUCTION

The use of Artificial Intelligence (AI) in education, particularly in language learning and teaching, has evolved significantly since the advent of computing. With the development of advanced AI tools like ChatGPT, Google Assistant, and Grammarly, AI's role in foreign language classrooms has expanded from supporting basic tasks, such as improving pronunciation and vocabulary, to facilitating more complex, adaptive learning experiences. These tools are not only popular but also promise to revolutionize how foreign languages are taught and learned, offering solutions to some of the longstanding challenges in language education, such as catering to varying proficiency levels and providing personalized learning opportunities (Chen et al., 2020).

In terms of foreign language teaching, AI shows promise in revolutionizing how foreign languages are taught and learned. Traditionally, language instruction faced challenges like class time, varying levels of proficiency among students, and a one-size-fits-all curriculum approach (Schulz, 2007). AI-supported language learning solutions address these challenges by offering adaptive learning experiences that help each learner to reach at their own pace. In her research, Pokrivcakova (2019) specified the methods of integrating AI into foreign language education. These include developing tailored learning materials, utilizing machine translation tools, using AI writing tools, interacting with chatbots, utilizing AI-based language learning programs, experiencing virtual reality with intelligent virtual environments, and so on. These might be thought of as promising activities to increase the efficiency of the language instruction.

Using AI can also be used to give guidance and feedback in language teaching. There are some AItutors that employ natural language processing (NLP) algorithms while evaluating learners' grammatical knowledge, lexical knowledge, or speaking styles. The feedback provided by such AItutors might be time-efficient to reach correct information as they provide instant feedback. This can also improve the language learning process, enabling students to improve their abilities autonomously (Chassignol et al., 2018; Kahraman et al., 2010; Sharma et al., 2019; Tsai & Gasevic, 2017). Moreover, language learning platforms supported by AI use data analysis to identify trends and patterns in students' progress. This allows educators to make decisions regarding teaching methods and curriculum development based on data. AI systems can customize the level of challenge and engagement for each student by recording their progress, finding areas of difficulty, and dynamically adjusting the difficulty level and timing of learning tasks (Anis, 2023).

Integrating AI into language education has also some challenges that should be considered by the language instructors alongside its benefits. To exemplify, using too much technology might lead to a common learning style by eliminating individual learning styles. (Gocen & Aydemir, 2020; Tao et al., 2019). As language learning requires a considerable amount of interaction and communication, relying too much on AI-tutors could limit real-life interactions and the development of communicative skills. There are also concerns about the implications of using AI in education regarding privacy protection and biased algorithms (Cheng et. al., 2021; Tucker, 2019). Sharing too much detail about students' learning styles and personalities might raise issues about privacy and unauthorized access to information. In addition, AI may unintentionally cause biases within its recorded data, thereby creating privileged access to education for specific student groups. The availability of language learning tools and resources enabled by AI might be crucial for the development of educational opportunities, and AI has the potential to promote educational equality regardless of socioeconomic status or geographic location. However, there is still a concern that unfair distribution of technological access might worsen pre-existing inequalities (Beaunoyer et. al., 2020).

The rapid advancements in intelligence (AI) technology over the past few years have greatly impacted various aspects of human life, including education (Chen et al., 2020; Luan et. al., 2020; Sadiku et. al., 2020). One of the most important areas affected by AI is undoubtedly language education. Therefore, it is essential to explore how pre-service teachers perceive the integration of these technologies. Understanding their views on the benefits and challenges of AI in language teaching is crucial for

developing teacher training programs that prepare them to use AI effectively and ethically in their classrooms.

In light of these facts, this article discusses the importance of integrating artificial intelligence into education, focusing on foreign language learning. By examining the advantages and disadvantages of artificial intelligence involved in language teaching, we aim to provide educators with day-to-day perspectives on how artificial intelligence can be used for learning intervals by successfully addressing it. Therefore, this research sought answers to the questions listed below:

- 1. What are the thoughts of pre-service teachers about integrating AI tools into language teaching?
- 2. What are the positive aspects of integrating AI or AI applications (e.g., ChatGPT) in foreign language education, according to pre-service language teachers?
- 3. What are the negative aspects of integrating AI or AI applications (e.g., ChatGPT) in foreign language education pre-service language teachers?

By addressing these questions, the study seeks to contribute to the growing body of literature on AI in education, providing insights into how future educators view the integration of AI into language teaching and learning. The findings are expected to inform teacher education programs, ensuring that pre-service teachers are adequately prepared to navigate the opportunities and challenges of AI in their professional practice.

METHODOLOGY

Research Model

This study employed explanatory methodology to reveal what pre-service language teachers think about integrating AI tools in language teaching. In addition, this study aimed to find out the benefits and drawbacks of AI tools (e.g., ChatGPT) in foreign language education. This methodology allowed us to explore (a) how participants use AI tools in their daily lives; (b) how participants use AI tools in education; (c) the advantages of AI tools; (d) the drawbacks of AI tools; and (e) creative ideas to use AI tools in education. Therefore, a qualitative research method was employed considering the responses of the participants during the semi-structured interview sessions.

Research Ethics

To ensure the ethical conduct of the research, informed consent was obtained from all participants. Their confidentiality was protected. In addition, ethical permission was obtained from Nevşehir Hacı Bektaş Veli University, Research and Publication Ethics Board on 26.11.2024 with the decision number 2024.11.290.

Participants

Seventeen pre-service ELT teachers voluntarily participated in this study. Convenient sampling was used in the selection of the participants. The participants were studying in the last year of the English Language Teaching department of a state university in Turkiye and they had instructional technology lessons during their education. The participants' ages ranged from 21 to 23, and they used AI tools at least once in their educational lives. Therefore, they were familiar with some AI tools.

Data Collection and Analysis

The data for this study were collected during the 2023-2024 education year. Semi-structured interviews were conducted with the participants, and each interview lasted for about 15 minutes. The following questions were asked during the interviews.

- 1. Do you use artificial intelligence (AI) tools (e.g., ChatGPT) in your daily life? How often do you use them? Which tools do you use?
- 2. Do you use artificial intelligence (AI) tools (e.g., ChatGPT) in your education life as a student? How often do you use them? Which tools do you use?
- 3. For what purpose do you use artificial intelligence (AI) tools (e.g., ChatGPT)?
- 4. What are the advantages of using artificial intelligence (AI) tools? Why?
- 5. What are the drawbacks of using artificial intelligence (AI) tools? Why?
- 6. What are your opinions about teachers' use of AI tools in their instruction? Do you think AI tools should be used in education?
- 7. As a teacher, can you share any ideas you have about the use of artificial intelligence in foreign language teaching?
- 8. How do you evaluate the impact of the increase in the use of artificial intelligence in education? Please explain.

The interviews were audio-recorded and subsequently transcribed. This research employed an inductive method for qualitative content analysis (Bengtsson, 2016) using the data gathered in the interview sessions. The research included numerous phases of coding and analysis as described by Saldaña (2016). This approach included first reviewing and annotating the data, then coding both explicit and latent information, and ultimately classifying and developing themes (Saldaña, 2016). During the coding process, the researchers carefully examined participants' responses to identify themes based on similarities and differences. The codes and themes were reached on consensus of two researchers. In addition, direct quotes of the participants were also included to support the findings of the current study.

FINDINGS

Four major themes were identified as the result of the content analysis. These themes are *frequency of AI use, positive aspects, negative aspects,* and *use of AI in language teaching*. Each theme was further divided into sub-codes based on specific responses, and frequency counts provided an overview of the prevalence of each perspective as shown in Table 1 below.

Themes	Codes	Frequency	Total Frequency
Frequency of AI use	AI tools in daily life	12	34
	AI tools in education	10	
	AI tools for personal use	7	
	Infrequent use of AI	5	
Positive aspects of AI	Time-saving	14	39
	Convenience	11	
	Access to extensive information sources	8	
	Enhanced productivity	6	
Negative aspects of AI	Job displacement	9	26
	Becoming overly dependent on AI	7	
	Reduction in critical thinking skills	6	
	Data security risks	4	
Use of AI in language teaching	Support teaching practices	10	31
	Facilitating learning process	9	
	Individualized learning	8	
	Inequalities in access	4	

Table 1. Themes and codes derived from the qualitative data

Frequency of AI use

The analysis revealed varied patterns in participants' AI usage habits (N = 34). The participants expressed that they use these tools for translation, navigation, conversation, entertainment, organization, and researching. A significant proportion of participants (about 35%) reported integrating AI applications into their daily routines. These frequent users primarily cited convenience and rapid access to information as their main motivations. For example, some participants used AI-driven voice assistants or translation tools in everyday tasks, suggesting that AI has become a functional and accessible tool in their daily lives. To illustrate this case, the statement of one of the participants is given below:

"ChatGPT has become an application that I use frequently because I can find what I am looking for in a much more practical and detailed way." (PST 6)

Educational usage emerged as the second most frequent reason for using AI applications, with approximately 29% of participants utilizing AI to assist with academic tasks, such as gathering information for research, preparing assignments, or seeking quick explanations for complex concepts. One of the participants explained the case with the following sentence:

"... especially when doing homework research. Because it allows me to access abundant, diverse, detailed, and reliable information in the shortest time, even in seconds." (PST 9)

In contrast, some participants (15%) reported using AI infrequently, typically in more recreational contexts like entertainment or social media applications. This variation in usage patterns indicates that while AI has penetrated various domains, individual engagement levels vary considerably based on personal needs and preferences (approximately 21%) as shown in the following quote.

"There are times when I don't use it for weeks, I wouldn't say almost never, so I use it occasionally. In my daily life, I search for personal things like asking it to recommend a movie in the genre I like by giving certain criteria." (PST 2)

Positive Aspects of AI

The most frequent theme that derived from the content analysis was the positive aspects of AI (N = 34). Among the benefits of AI, its time-saving factor was highly valued by participants. 36% of the participants emphasized its contribution to reducing the time required for varying tasks. AI enables pre-service language teachers to achieve their goals more efficiently, allowing for better time management. Convenience was the second most cited advantage (28%), with participants appreciating AI's ability to provide streamlined solutions to complex tasks. Several pre-service teachers noted that AI applications, such as translation tools and virtual assistants, simplified processes that otherwise required significant time or specialized knowledge. Access to extensive information sources was another benefit identified, as 21% of participants described AI as a gateway to vast, organized data that facilitates rapid information retrieval. AI's capacity to analyze and synthesize data from various sources was perceived as particularly helpful for academic and professional purposes. AI's contribution to enhanced productivity was also noted (15%), with participants observing that AI could reduce repetitive tasks and allow users to focus on more complex or creative endeavors. Overall, AI was seen as a powerful resource, providing valuable support across various aspects of life and work. The participants stressed the benefits of AI tools with the following remarks:

"Artificial intelligence or its applications can perform operations faster than humans, which saves us a lot of time. They are also more efficient than browsers such as Google, Yandex and Chrome and have the ability to analyze large amounts of data, which allows for more accurate results/data to be produced." (PST 14)

"AI applications can perform complex data analytics, especially in areas such as health, finance, and security. This can provide great advantages in making accurate predictions, performing risk analysis, and detecting errors in advance." (PST 8)

Negative Aspects of AI

Despite the acknowledged benefits, participants also expressed concerns about AI's potential drawbacks, which centered on issues related to employment, dependency, privacy, and cognitive impacts. Job displacement was the most frequently mentioned concern, cited by 35% of participants who feared that AI automation could lead to reduced job opportunities in certain fields. This concern was particularly prevalent among the pre-service teachers who anticipated AI replacing human roles in fields reliant on routine tasks. A concern of becoming overly dependent on AI was expressed by 27% of participants, who perceived it as a threat to their creativity and problem-solving skills. Several participants (23%) emphasized that the consistent reliance on AI could result in a decline in critical thinking skills, as tasks that previously required mental effort are now supported by machines. In addition, certain participants believed that the convenience of AI could encourage the practice of taking shortcuts, which could result in a decrease in independent thinking and profound learning abilities. Privacy was another area of concern, with 15% of participants expressing discomfort over data security risks and the potential for personal information misuse. These participants were hesitant about AI applications collecting and analyzing personal data, which they viewed as a possible invasion of privacy. Moreover, some participants pointed out that while AI can facilitate efficiency, its algorithms could occasionally produce inaccuracies, especially in contexts requiring nuanced understanding, such as language translation. The drawbacks of AI tools were quoted as follows:

"It's starting to feel like there won't be any need for humans anymore, and that scares me a little." (PST 16)

"Artificial intelligence may be reducing people's research, analysis, and synthesis skills by getting them used to the easy and comfortable. It may also negatively affect critical thinking skills because information presented directly to people is accepted and used without questioning." (PST 13)

"Most of the applications that work with artificial intelligence ask us for permission when they are launched, thus providing access to a lot of our data, which puts our right to privacy at risk." (PST 9)

Use of AI in language teaching

The potential of AI in language teaching was widely acknowledged, especially in its ability to support and complement instructional practices. AI's contribution to the improvement of lesson planning, curriculum design, and language content creation was underscored by 32% of responses. AI was perceived as an assistant, rather than a replacement, for language teachers. While participants appreciated AI's value in language instruction, they emphasized the importance of a human element to maintain interpersonal connections, motivate students, and offer culturally responsive, empathetic feedback. In addition, AI was stated to facilitate the language learning process by 29% of the participants. It was highlighted that AI promotes the language learning process in multiple ways, such as offering vocabulary lists, grammar exercises, and language quizzes. Participants noted that AI tools could save language teachers significant time in preparing tailored materials, enabling them to focus more on interactive teaching. Furthermore, AI's capacity to provide individualized language-learning experiences was recognized as a valuable benefit; 26% of the participants described how AI could adapt exercises and feedback to each student's proficiency level, enhancing engagement and fostering a deeper understanding of language nuances. Pre-service language teachers (13%) also expressed concerns about potential inequalities in access to AI-based language tools, particularly in underresourced educational settings. Some participants worried that schools lacking adequate technological resources might struggle to implement AI tools, potentially widening the educational gap among students with varying levels of access to technology. Use of AI tools in foreign language education was exemplified with the following sayings:

"Artificial intelligence applications, especially ChatGPT, can provide valuable support in developing course content and finding resources for teachers." (PST 11)

"On the other hand, artificial intelligence in foreign language teaching can increase learning motivation by providing students with personalized language experiences." (PST 7)

DISCUSSION, CONCLUSION and IMPLICATIONS

The findings reflect diverse patterns in how pre-service teachers utilize AI tools, with ChatGPT, Google Assistant, and Grammarly being frequently mentioned applications for daily and educational purposes. This aligns with prior research by Anis (2023), Chassignol et al. (2018), Dizon and Gayed (2021), and Nazari et al. (2021) which highlights AI's role in providing rapid feedback, individualized learning, and adaptive language learning experiences. Participants in our study valued AI's capacity for saving time and simplifying complex tasks, particularly through tools that support translation and grammar correction. This supports Kahraman et al. (2010) and Tsai and Gasevic (2017), who describe how AI-driven feedback can streamline students' learning processes and empower them to practice autonomously.

Another significant benefit of AI, as noted by participants, was its role in enhancing productivity and providing broad access to information. The accessibility of AI as a resource aligns with the findings of Chen et al. (2020), Gocen and Aydemir (2020), and Korkmaz and Akbıyık (2024), who observed that AI applications allow students to efficiently gather and process information. This benefit can be especially advantageous in resource-limited educational contexts where quick and accessible information can bridge learning gaps. However, concerns about data privacy and algorithmic bias, as highlighted by Tucker (2019) and Cheng et al. (2021), were also noted. Participants expressed caution regarding the potential misuse of personal data and the unintended reinforcement of biases within AI algorithms, pointing to the need for responsible AI usage in educational settings (Hockly, 2023).

Despite the promising benefits, participants voiced concerns about AI's potential to undermine critical thinking skills and human interaction in language learning (Edmett et al., 2023). Frequent use of AI, particularly in automated feedback and personalized support, may inadvertently discourage students from developing problem-solving skills and engaging in deeper cognitive processing. This aligns with Tao et al. (2019), who warned of the risk of AI promoting a common learning style that may overlook individual needs, leading to overdependence and reduced critical thinking. Furthermore, the emphasis on individualized learning risks reducing real-life communicative skills, which are crucial in language acquisition, as students may rely too heavily on AI assistance rather than practicing interactive, person-to-person communication.

The participants also highlighted the potential of AI to worsen inequalities due to limited access to technology in some educational environments. Beaunoyer et al. (2020) and Sadiku et al. (2020) discuss similar concerns, indicating that technological access remains a barrier that can contribute to educational disparities. Therefore, while AI has the potential to democratize language learning, its benefits may not be fully realized if access remains unequal, underscoring the importance of addressing technological gaps in less-resourced schools.

This study presents important implications for both teacher education programs and educational policy. Given the benefits and challenges highlighted by pre-service teachers, integrating AI tools into teacher training curricula is essential. Teacher education programs should provide instruction not only on using AI tools effectively but also on developing a critical understanding of their limitations and ethical considerations (Pokrivcakova, 2019; Tucker, 2019). Specifically, training should focus on maintaining a balance between AI assistance and fostering communicative, interpersonal skills in language learners, as over-reliance on AI may hinder the development of essential language skills (Tao et al., 2019; Beaunoyer et al., 2020). Furthermore, educational policymakers should consider the disparities in access to AI resources. Schools in under-resourced areas may lack the technology infrastructure necessary for effective AI integration, which could increase existing educational inequalities (Beaunoyer et al., 2020; Chen et al., 2020). Policymakers should address these gaps to promote equitable access to AI tools, ensuring all students can benefit from advancements in AI-supported education. Finally, as AI usage in education raises concerns about data privacy and biases,

it is crucial for educational institutions to establish clear guidelines and ethical policies for AI use in classrooms. These policies should protect student privacy and promote transparency in AI algorithms to prevent bias, thereby creating a safer and more inclusive learning environment for all students (Cheng et al., 2021).

REFERENCES

- Anis, M. (2023). Leveraging Artificial Intelligence for Inclusive English Language Teaching: Strategies and Implications for Learner Diversity. *Journal of Multidisciplinary Educational Research*, 12(6), 54-70.
- Beaunoyer, E., Dupéré, S., & Guitton, M. J. (2020). COVID-19 and digital inequalities: Reciprocal impacts and mitigation strategies. *Computers in Human Behavior*, 111, 106424. https://doi.org/10.1016/j.chb.2020.106424
- Bengtsson, M. (2016). How to plan and perform a qualitative study using content analysis. *NursingPlus open, 2,* 8-14. <u>https://doi.org/10.1016/j.npls.2016.01.001</u>
- Chassignol, M., Khoroshavin, A., Klimova, A., & Bilyatdinova, A. (2018). Artificial Intelligence trends in education: a narrative overview. *Procedia Computer Science*, 136, 16-24. https://doi.org/10.1016/j.procs.2018.08.233
- Chen, L., Chen, P., & Lin, Z. (2020). Artificial intelligence in education: A review. *Ieee Access*, *8*, 75264-75278. https://doi.org/10.1109/ACCESS.2020.2988510
- Cheng, L., Varshney, K. R., & Liu, H. (2021). Socially responsible ai algorithms: Issues, purposes, and challenges. *Journal of Artificial Intelligence Research*, 71(1), 1137-1181. https://doi.org/10.1613/jair.1.12814
- Dizon, G. & Gayed, J. M. (2021). Examining the impact of Grammarly on the quality of mobile L2 writing. *JALT CALL Journal*, 17(2), 74–92. <u>https://doi.org/10.29140/jaltcall.v17n2.336</u>
- Edmett, A., Ichaporia, N., Crompton, H., & Crichton, R. (2023). *Artificial intelligence and English language teaching: Preparing for the future.* London: British Council. <u>https://doi.org/10.57884/78ea-3c69</u>
- Gocen, A., & Aydemir, F. (2020). Artificial intelligence in education and schools. *Research on Education and Media*, 12(1), 13-21. <u>https://doi.org/10.2478/rem-2020-0003</u>
- Hockly, N. (2023). Artificial intelligence in English language teaching: The good, the bad and the ugly. *Relc Journal*, 54(2), 445-451. <u>https://doi.org/10.1177/00336882231168504</u>
- Kahraman, H. T., Sagiroglu, S., & Colak, I. (2010). Development of adaptive and intelligent web-based educational systems. In 2010 4th international conference on application of information and communication technologies (pp. 1-5). IEEE.
- Korkmaz, H., & Akbıyık, M. (2024). Unlocking the potential: Attitudes of tertiary level EFL learners towards using AI in language learning. *Participatory Educational Research*, 11(6), 1-19. <u>https://doi.org/10.17275/per.24.76.11.6</u>
- Luan, H., Geczy, P., Lai, H., Gobert, J., Yang, S. J., Ogata, H., ... & Tsai, C. C. (2020). Challenges and future directions of big data and artificial intelligence in education. *Frontiers in Psychology*, 11, 580820. https://doi.org/10.3389/fpsyg.2020.580820

- Nazari, N., Shabbir, M. S. & Setiawan, R. (2021). Application of artificial intelligence powered digital writing assistance in higher education: Randomized controlled trial. *Heliyon*, 7(5), e07014. https://doi.org/10.1016/j.heliyon.2021.e07014
- Pokrivcakova, 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. <u>https://doi.org/10.2478/jolace-2019-0025</u>
- Sadiku, M. N., Musa, S. M., & Chukwu, U. C. (2022). Artificial intelligence in education. iUniverse.
- Saldaña, J. (2016). The coding manual for qualitative researchers. Sage Publications.
- Schulz, R. A. (2007). The challenge of assessing cultural understanding in the context of foreign language instruction. *Foreign language annals*, 40(1), 9-26. <u>https://doi.org/10.1111/j.1944-9720.2007.tb02851.x</u>
- Sharma, R. C., Kawachi, P., & Bozkurt, A. (2019). The landscape of artificial intelligence in open, online and distance education: Promises and concerns. *Asian Journal of Distance Education*, 14(2), 1-2.
- Tao, B., Díaz, V., & Guerra, Y. (2019). Artificial intelligence and education, challenges and disadvantages for the teacher. *Arctic Journal*, 72(12), 30-50.
- Tsai, Y. S., & Gasevic, D. (2017). Learning analytics in higher education---challenges and policies: a review of eight learning analytics policies. In *Proceedings of the seventh international learning analytics & knowledge conference* (pp. 233-242).
- Tucker, C. (2019). Privacy, algorithms, and artificial intelligence. In A. Agrawal, J. Gans, A. Goldfarb (Eds.), *The economics of artificial intelligence* (pp. 423-437). University of Chicago Press. https://doi.org/10.7208/9780226613475

GENİŞLETİLMİŞ ÖZET

Yapay Zekanın son yıllardaki hızlı gelişimi, eğitimden sağlığa, ekonomiden günlük yaşama kadar birçok alanda köklü değişimlere yol açmıştır. Yabancı dil eğitimi de yapay zekâ teknolojilerinden büyük ölçüde etkilenen alanlardan biri olarak öne çıkmaktadır. Bu çalışma, öğretmen adaylarının dil eğitiminde yapay zekâ araçlarını kullanmaya ilişkin görüşlerini, bu araçların avantaj ve dezavantajlarını ortaya koymayı hedeflemektedir. Katılımcıların yapay zekayı kullanım sıklıkları, bu teknolojilerle yaşadıkları olumlu ve olumsuz deneyimleri, ayrıca yapay zekanın dil öğretimine katkı sağlama potansiyeline dair algıları incelenmiştir. Yapay zekanın dil öğretiminde etkili ve etik bir biçimde nasıl entegre edilebileceğine dair önemli çıkarımlar sağlayan bu çalışma, eğitimde yapay zekâ kullanımının artan önemine ışık tutmaktadır.

Bu araştırmada nitel araştırma yöntemi benimsenmiştir. Veri toplama sürecinde yarı yapılandırılmış görüşmeler yapılmış ve her görüşme yaklaşık 15 dakika sürmüştür. Araştırma kapsamında Türkiye'deki bir devlet üniversitesinde İngilizce öğretmenliği eğitimi gören ve öğretim teknolojileri dersleri almış olan 17 son sınıf öğrencisiyle görüşülmüştür. Katılımcılar, eğitim hayatları boyunca çeşitli yapay zekâ araçlarını en az bir kez deneyimlemiş oldukları için bu tür teknolojilere aşina durumdadır. Veriler analiz edilirken, katılımcıların ifadeleri kodlanmış ve bu kodlardan ana temalar çıkarılarak yorumlanmıştır. Çalışmada dört ana tema belirlenmiştir: Yapay zekâ kullanım sıklığı, yapay zekânın olumlu yönleri, yapay zekânın olumsuz yönleri ve dil öğretiminde yapay zekâ kullanımı.

Yapay Zekâ Kullanım Sıklığı: Katılımcıların yapay zekâ kullanımı çeşitli alanlarda farklılık göstermektedir. Günlük hayatlarında çeviri, yön bulma, eğlence, organizasyon ve araştırma gibi amaçlarla yapay zekâ kullandıklarını ifade etmişlerdir. Yüzde 35 gibi önemli bir kesim, ChatGPT ve Google Asistan gibi uygulamaları rutin işlerini kolaylaştırmak ve bilgiye hızla erişmek için sıkça

kullandıklarını belirtmiştir. Eğitim bağlamında, ödev hazırlama, araştırma yapma ve karmaşık kavramları hızlıca öğrenme amacıyla yapay zekâ kullananlar ise yüzde 29'u oluşturmaktadır. Ancak bazı katılımcılar (%15), yapay zekâyı nadiren, daha çok eğlence veya sosyal medya gibi kişisel amaçlarla kullandıklarını belirtmişlerdir. Bu farklılıklar, yapay zekâ kullanımının kişisel ihtiyaçlara ve tercihlere göre değişiklik gösterebileceğini ortaya koymaktadır.

Yapay Zekânın Olumlu Yönleri: Yapay zekânın en çok değer verilen özelliklerinden biri, zamandan tasarruf sağlamasıdır. Katılımcıların %36'sı, yapay zekânın görevleri hızlı bir şekilde tamamlayarak zamandan kazandırdığını vurgulamıştır. Yüzde 28'i ise yapay zekânın pratik çözümler sunma kapasitesini belirtmiş, %21'i ise bilgiye geniş bir yelpazeden ulaşma imkânı sunduğunu ifade etmiştir. Yapay zekânın iş verimliliğini arttırarak bireylerin tekrarlayan görevlerden kurtulmasını sağladığı da katılımcılar arasında sıklıkla dile getirilen bir diğer avantajdır (%15). Örneğin, bazı katılımcılar, yapay zekâ destekli araçların çeviri ve dil bilgisi düzeltme gibi işlemleri hızlandırarak eğitim sürecini verimli hale getirdiğini vurgulamıştır.

Yapay Zekânın Olumsuz Yönleri: Katılımcılar, yapay zekânın avantajlarının yanı sıra olumsuz etkilerine dair kaygılarını da dile getirmişlerdir. En çok öne çıkan kaygı, iş kaybı olasılığıdır. Katılımcıların %35'i, yapay zekânın özellikle rutin işlerde insanlara olan ihtiyacı azaltabileceği konusunda endişelerini dile getirmiştir. Bu durum, özellikle öğretmen adayları arasında yapay zekânın öğretim süreçlerini tamamen otomatikleştirebileceğine dair bir korkuya yol açmıştır. Ayrıca, bazı katılımcılar (%27), yapay zekâya aşırı bağımlı olmanın yaratıcılık ve problem çözme becerilerine zarar verebileceğini belirtmişlerdir. Yüzde 23'lük bir kesim, yapay zekâ kullanımıyla kritik düşünme becerilerinin azalabileceğini savunmuştur. Diğer bir endişe konusu ise veri güvenliği olup, katılımcıların %15'i yapay zekânın kişisel veri güvenliği riskleri taşıdığını ifade etmiştir.

Dil Öğretiminde Yapay Zekâ Kullanımı: Katılımcılar, yapay zekânın dil öğretiminde destekleyici bir araç olarak kullanılması gerektiğini, ancak insan unsurunun önemini koruması gerektiğini vurgulamışlardır. Yüzde 32'lik bir kesim, yapay zekânın ders planlamada, müfredat hazırlamada ve dil içeriği oluşturmada öğretmenlere yardımcı olabileceğini ifade etmiştir. Yüzde 29'u, yapay zekânın öğrencilere kelime listeleri, dil bilgisi alıştırmaları ve kısa sınavlar sunarak dil öğrenme sürecini kolaylaştırabileceğini belirtmiştir. Ayrıca, %26'lık bir grup, yapay zekânın bireyselleştirilmiş dil öğrenim deneyimleri sunarak öğrencilere seviyelerine göre uyarlanmış alıştırmalar sağlayabileceğini vurgulamıştır. Ancak, %13'lük bir kesim, teknolojik kaynaklara erişim imkânı olmayan okullarda yapay zekâya erişimde eşitsizlik yaşanabileceğini ve bu durumun mevcut eğitim farklarını daha da derinleştirebileceğini dile getirmiştir.

Çalışmanın bulguları, öğretmen adaylarının yapay zekâ araçlarını dil öğretiminde çeşitli amaçlarla kullandıklarını ve bu araçların öğretim süreçlerini destekleyici potansiyelini benimsediklerini göstermektedir. Bununla birlikte, öğretmen adayları yapay zekânın aşırı kullanımı sonucunda insan etkileşiminin azalabileceği ve öğrencilerin kritik düşünme gibi bilişsel becerilerinin gelişiminin olumsuz etkilenebileceği konusunda endişe duymaktadır. Ayrıca, eğitimde yapay zekâ kullanımı konusunda veri güvenliği gibi etik kaygıların dikkate alınması gerektiği vurgulanmıştır.

Bu araştırmanın bulguları, öğretmen yetiştirme programları ve eğitim politikaları için değerli çıkarımlar sunmaktadır. Öğretmen adaylarının yapay zekâ araçlarını verimli kullanabilmeleri ve teknolojinin sınırlılıklarını eleştirel bir gözle değerlendirebilmeleri için öğretmen eğitimi müfredatlarına yapay zekânın etkili ve etik kullanımıyla ilgili içerik eklenmesi önerilmektedir. Eğitim politikacıları da yapay zekâ araçlarına erişimde eşitliği sağlamak amacıyla kaynakların tüm öğrencilere adil bir şekilde dağıtılmasını desteklemelidir.

Sonuç olarak, yapay zekânın dil eğitimi üzerindeki etkileri üzerine yapılan bu çalışma, yapay zekânın eğitime entegrasyonunun fırsatları ve riskleri hakkında önemli veriler sunmakta olup, öğretmen eğitiminde ve eğitim politikalarında dikkate alınması gereken temel noktaları gözler önüne sermektedir.