

INFORMATION TECHNOLOGY IN TEACHING FOREIGN LANGUAGES SESSION

# UNDERSTANDING THE ROLE OF DIGITAL TOOLS IN SERBIAN HIGH SCHOOL LANGUAGE EDUCATION

Neda Maenza, [0000-0002-4974-6052]

Tijana Gajić, [0000-0002-5013-2867]

Maja Veljković Michos, [0000-0003-2931-6554]

Aleksandra Gagić [0000-0002-6804-4662]

Singidunum University, Belgrade, Serbia

#### Abstract:

This paper investigates the attitudes of foreign language educators in Serbian high schools towards the use of digital educational tools in teaching. Grounded in a qualitative paradigm, the research explores specific research questions to delve into teachers' perceptions and experiences regarding digital tools. Through teacher-focused research questions and hypotheses, the study aims to elucidate factors influencing teachers' attitudes towards digital tools, such as years of experience, perceptions of student engagement, preferences for specific tools, perceived obstacles, and the need for additional training. The methodology involves descriptive techniques, including observation and interviews organized as focus groups, with ten purposefully selected teachers participating. Findings reveal a generally positive inclination towards digital tools among teachers, despite some resistance among experienced educators. Teachers' perceptions of digital tools positively correlate with their integration into teaching methodologies, emphasizing benefits for student engagement and learning outcomes. However, challenges such as technological proficiency and institutional support persist. Strategies for overcoming these challenges and the importance of continuous professional development are highlighted. Overall, the integration of digital tools offers opportunities for individualized learning experiences, fostering autonomy, motivation, and creativity among students.

## Keywords:

Digital educational tools, Language teaching, Teacher attitudes, Qualitative research, Professional development.

#### INTRODUCTION

The impact of digital technologies after the global health situation of COVID-19 is still transforming educational environments and implies dynamic activities for teachers: constant training, development of skills, and use of new or updated resources to enhance teaching and research practices within the hybrid educational environments. Technology, on the one hand, allows teachers to update their methodologies, helping face-to-face classes to be more interesting and dynamic, and facilitating hybrid teaching and virtual learning experiences. On the other hand, technological aids contribute to educational innovation only if they are used meaningfully, and in a pedagogically justified way.

#### Correspondence:

Aleksandra Gagić

#### e-mail:

agagic@singidunum.ac.rs



Regarding second language learning, we can recall Krashen's hypotheses of comprehensible input and affective filters, emphasising comprehensible and interesting content that can encourage learners to achieve confidence and lower levels of anxiety [1]. Digital technologies, as a familiar and motivating tool for students, have immense potential to enhance learning opportunities in developing linguistic and communicative skills in the target language. However, the mere use of technological tools and online resources by teachers and learners does not imply meaningful teaching and learning of a foreign language [2]. Therefore, teachers' pedagogical, digital, and content competencies have significant potential to improve the quality of the teaching process and consequently enhance more effective learning.

## 2. TEACHERS' DIGITAL COMPETENCES

Both educators and students in all educational levels and places have recognized both, positive and negative aspects of the digital technology and hybrid teaching environments. The use of technology is definitely indispensable in nowadays teaching, but in-site interaction and the teacher's presence still have essential value for effective language learning [3].

For this reason, the digital education framework was adopted by the European Commission to provide directions and support to teachers in the newly imposed educational environments [4].

In our country, following the global educational trends, a framework of digital competencies for teachers has been designed, with the aim to offer directions for teachers' and students' digital competencies necessary for study, work, and life in a digital era [5]. In the same context, teachers in our country shared different experiences and challenges regarding their teaching practices in an online environment [6]. The current need is that language teachers, besides their pedagogical and target language teaching competencies, may develop their digital competencies as one of the essential 21st-century skills, to enhance effective teaching with the use of technology.

Besides the numerous benefits and contributions of technology and digital tools for learning and teaching, a recent study, which was conducted in our local university context, showed that both teachers and students consider the teachers' function as the most prominent aspect of effective language learning. The human interaction, teachers' explanations, and lectures are more significant for learners than the mere use of technology

for learning [7]. Technology as a proven beneficial tool can support innovative methodologies. However, language teachers do not renounce the use of traditional printed materials such as course books and textbooks which their students consider reliable tools as well. For this reason, the use of technologies nowadays might be even more responsible and purposeful than before, to enhance learning opportunities for every learner and in any environment.

According to the research conducted with students, the results indicate that the main advantage of incorporating digital tools into foreign language teaching lies in the captivating and invigorating learning environment they create [8]. Pedagogical implications arising from the previous research suggest that teachers should utilize a range of digital tools to accommodate diverse learning styles and enhance student motivation. Additionally, fostering digital competency and creativity among educators can facilitate the integration of innovative technologies, fostering critical thinking and personalized learning experiences for students [9]. Following the frameworks and standards, but also performing periodical research with students and teachers in concrete learning contexts, valuable data may be obtained to analyse and evaluate, with the purpose of improving our teaching practices.

#### METHODOLOGY

This paper aims to investigate the attitudes of foreign language teachers in Serbia towards the use of digital educational tools in teaching. Grounded in a qualitative paradigm, this research employs specific research questions to achieve its goals. Teacher-Focused Research Questions:

- RQ1: How many years of experience do you have in language teaching?
- RQ2: How do digital tools influence student engagement in language teaching?
- RQ3: Which digital tools do you perceive as most beneficial for language teaching, and why?
- RQ4: What are the primary obstacles encountered when introducing or utilizing digital tools in language teaching?
- RQ5: Do you believe that additional training or support is necessary for teachers to effectively utilize digital tools? If so, what specific training methods do you suggest?



 RQ6: In what ways can digital tools enhance the individualization of language learning and accommodate diverse learning styles?

Hypotheses related to Teachers' attitudes and perceptions:

- H1: Teachers with more years of experience in language teaching will exhibit a higher level of resistance towards adopting digital educational tools in their teaching practices compared to less experienced teachers.
- H2: Teachers who perceive digital tools as positively influencing student engagement in language teaching will demonstrate a greater inclination towards integrating these tools into their teaching methodologies.
- H3: Teachers' preferences for specific digital tools in language teaching will be influenced by factors such as ease of use, accessibility, versatility, and alignment with pedagogical principles.
- H4: The perceived obstacles to the introduction and use of digital tools in language teaching will vary among teachers based on factors such as technological proficiency, institutional support, and perceived impact on teaching efficacy.
- H5: Teachers who believe that additional training or support is necessary for the effective utilization of digital tools will express preferences for hands-on workshops, and peer learning sessions tailored to their specific needs and contexts.
- H6: Teachers who recognize the potential of digital tools to enhance individualized learning experiences and accommodate diverse learning styles will demonstrate a greater openness towards experimenting with innovative teaching approaches and instructional designs.

## 4. DATA COLLECTION:

A descriptive methodology was employed, incorporating observation of the current situation and interviews as primary research techniques. Qualitative research, organized in the form of focus groups, was conducted to gather perspectives from foreign language teachers working in secondary schools and gymnasiums in the Republic of Serbia. These teachers had already implemented digital tools in language teaching and participated in various trainings and seminars on this topic.

Participant Selection and Research Scope:

Ten foreign language teachers participated in the qualitative research phase, constituting a purposeful, non-random sample. Participants were selected based on practical data indicating their extensive experience, clear articulation of views on educational and sociological matters, and significant exposure to the use of digital tools in varying degrees.

The qualitative research aimed to elucidate participants' experiences, potential concerns, advantages, and disadvantages encountered during language teaching, as well as in intercultural activities.

#### 5. RESULTS AND DISCUSSION

Presented below are the perspectives and viewpoints gathered from foreign language teachers in Serbian secondary schools and gymnasiums regarding the utilization of digital tools for educational purposes in language teaching.

Question 1 of the interview aimed to ascertain the participants' years of experience in language teaching and work in school. The responses from the ten participants varied, with years ranging from 11 to 28. The distribution of years of experience among the participants provides insight into the diversity of backgrounds and levels of expertise within the sample group. This range of experience is valuable for understanding how attitudes towards the use of digital educational tools may differ based on varying levels of teaching experience.

Question 2 of the interview was designed to investigate the influence of digital tools on student engagement in language teaching, revealing a range of perspectives on their impact. Digital tools in language teaching are perceived as effective in attracting attention, generating interest, and encouraging student activity. However, there is recognition of a potential downside, as some students may use digital tools primarily to ease their tasks without necessarily aiming to improve language proficiency. Thus, participants emphasize the importance of providing strict guidance to students throughout the process of using digital tools. Despite potential challenges, many participants express support for integrating digital tools into teaching practices, highlighting the necessity of keeping up with contemporary educational trends. Some participants actively endeavor to utilize digital tools to a greater extent in their teaching.



Participants acknowledge that digital tools contribute to improving conversational skills, facilitating freedom of expression, and reinforcing everyday expressions and grammatical constructions. Digital tools are seen as motivational tools that enable students to engage more actively in learning activities, making lessons more enjoyable and maintaining student interest.

While digital tools may temporarily increase student engagement, there is recognition that sustained engagement may require additional strategies to address potential monotony. The overall perception of digital tools is positive among participants, with an emphasis on their effectiveness in catering to the preferences and interests of contemporary students and young generations. Participants highlight the preference of students for interactive and multimedia-rich learning experiences facilitated by digital tools, such as watching videos, engaging with presentations, and participating in quizzes, which foster greater motivation and willingness to work.

Question 3 of the interview aimed to identify which digital tools language educators perceive as most beneficial for language teaching and to explore the reasons behind their preferences. The diverse range of digital tools identified by participants underscores the multifaceted nature of language teaching and highlights the significance of leveraging technology to accommodate diverse learning styles and preferences while considering factors such as accessibility, engagement, and pedagogical effectiveness. Participants highlight the value of platforms that offer a wide range of materials, including audio-visual resources, tasks, questions, and tests. Examples provided include Kahoot, Google Classroom, and Prezi. A digital textbook is recognized for its comprehensive and organized presentation of materials, facilitating a spiral progression of learning that builds upon previous concepts. Platforms enabling communication between students from different cities or countries are valued for their practical application of scientific language in real-world contexts, enhancing students' language skills and cultural understanding. Duolingo is mentioned for its everyday use and effectiveness in language learning. Participants express appreciation for the versatility and usefulness of various digital tools, including Mentimeter, and Narakeet, emphasizing their ability to engage students and support learning objectives.

Specific mention is made of these digital tools because of their capacity to enhance learning experiences, captivate student attention, and contribute to improved learning outcomes. Language teachers use these digital tools as they offer a dynamic and interactive learning environment, enhancing student engagement and motivation. Ultimately, their integration aligns with contemporary educational trends, promoting effective acquisition of all four language skills and catering to diverse learning preferences.

Question 4 of the interview sought to identify the primary obstacles encountered by teachers when introducing or utilizing digital tools in language teaching revealing a variety of challenges faced by language educators. Familiarity with the operation of digital tools and the time required to learn their functionalities are highlighted as significant obstacles. Additionally, preparation time and the need for comprehensive teacher training are emphasized to ensure the effective utilization of these tools. Participants express concerns about students' motivations and tendencies to prioritize task completion over language acquisition. Some digital tools, particularly quizzes, are perceived as fostering a superficial understanding of the language rather than facilitating meaningful learning experiences. It is noteworthy to mention the observation of one teacher who asserts that students often utilize digital tools with the sole intention of swiftly completing tasks, rather than prioritizing efficient language acquisition or proficiency development. Additionally, the efficacy of various tools, particularly quizzes such as Kahoot, has been called into question by educators. Despite their perceived utility, these tools are sometimes perceived by students as mere entertainment, resulting in minimal progress in substantive knowledge acquisition.

Evaluation and assessment pose challenges, especially in group work scenarios, where assessing individual contributions can be complex. Financial constraints and technical limitations within schools, including poor internet connectivity, inadequate equipment, and a lack of digital devices such as computers and projectors, hinder the seamless integration of digital tools into language teaching practices. Furthermore, disparities in technical capabilities and resources among schools in Serbia exacerbate the challenges associated with implementing digital tools uniformly across educational institutions.

Question 5 of the interview aimed to gauge participants' perspectives on the necessity of additional training or support for teachers to effectively utilize digital tools, along with suggestions for specific training methods.

Participants express a consensus on the importance of additional training or support for teachers to enhance their proficiency in utilizing digital tools effectively. Suggestions include online training sessions focusing on tool functionality and practical applications, as well as



institution-organized training programs. Some participants advocate for institutional support in the form of financial assistance for accessing premium digital tools or programs, which may offer enhanced features and functionalities beyond free alternatives. Others emphasize the need for readily available and free resources, such as pre-made exercises, to facilitate easier access and foster creativity in lesson planning. Specific training methods include tailored sessions focusing on the practical application of digital tools for each language skill, as well as online training formats to accommodate teachers' schedules and preferences. Participants stress the importance of ongoing training to keep pace with rapid changes in the digital landscape and to build teachers' confidence in integrating technology effectively into their teaching practices. It is noteworthy to mention the viewpoint of one teacher who asserts that additional training may not be necessary. Instead, they advocate for the practical implementation of existing knowledge and strategies in utilizing digital tools effectively. Additionally, participants highlight the value of collaborative learning and knowledge sharing among colleagues as a means of horizontal learning and exchanging best practices in utilizing digital tools.

Question 6 of the interview delved into exploring the ways in which digital tools can enhance the individualization of language learning and accommodate diverse learning styles. Digital tools facilitate personalized learning experiences by offering various functionalities such as auto-correction, research tasks, and well-designed activities tailored to individual needs and learning pace. These tools also enable students to engage in learning activities at their convenience, fostering autonomy and motivation. The diverse range of digital tools empowers students to select resources that align with their interests and preferred learning styles, promoting active engagement and ownership of their learning journey.

By providing opportunities for independent learning, digital tools contribute to the development of students' self-confidence, particularly benefiting shy and reserved learners. This shift in approach fosters a more inclusive and supportive learning environment. Enhanced monitoring and tracking of student progress enable teachers to assign personalized tasks that cater to individual learning needs, thereby promoting more successful learning outcomes across all language skills. Digital tools serve as catalysts for extracurricular learning, motivating students to extend their language practice beyond the confines of the classroom and prescribed curriculum. This expanded engagement facilitates deeper language acquisition and skill development.

# 6. CONCLUSION

In conclusion, this research has shed light on the attitudes of language teachers towards the use of digital educational tools in teaching, uncovering valuable insights into their perceptions and experiences.

Firstly, the hypothesis that teachers with more years of experience may exhibit resistance towards adopting digital tools was partially supported. While some resistance may exist, a significant majority of language educators in Serbia demonstrate a willingness to embrace digitization trends, acknowledging the benefits it brings in terms of student engagement and pedagogical adaptability.

Secondly, the positive correlation between teachers' perceptions of digital tools and their integration into teaching methodologies was evident. Teachers who perceived digital tools positively were more inclined to incorporate them into their instructional practices, fostering student engagement and learning outcomes.

Moreover, the diverse perspectives of teachers underscored the multifaceted impact of digital tools on student engagement, considering factors such as motivation, interactivity, and pedagogical effectiveness. The varied preferences for specific digital tools emphasized the importance of catering to diverse learning styles and preferences to enrich language learning experiences.

Despite the perceived benefits, challenges remain in the integration of digital tools, including obstacles related to technological proficiency, institutional support, and infrastructure. Strategies for overcoming these challenges, such as targeted teacher training programs and advocacy for improved technological infrastructure, are crucial for successful implementation.

Furthermore, the majority of teachers expressed the need for additional training and support to effectively utilize digital tools, highlighting the importance of continuous professional development. The integration of various training methods, including online sessions and institution-supported programs, represents a vital step towards empowering teachers to adapt to evolving technological advancements and engage students effectively in language learning.

Ultimately, the incorporation of digital tools in language teaching offers opportunities for individualized learning experiences, fostering autonomy, motivation, and creativity among students. Educators can leverage these insights to design innovative teaching approaches that cater to diverse learner needs and preferences, ultimately enriching the language learning journey for all participants.



Through collaborative efforts and ongoing professional development, language educators can harness the full potential of digital tools to create dynamic and engaging learning environments, ensuring meaningful and impactful language instruction in the digital age.

Pedagogical implications arising from the research highlight the importance of employing a diverse array of digital tools to accommodate varied learning styles and preferences. Embracing innovative technologies and honing digital competencies enable teachers to provide relevant and engaging learning experiences while fostering students' critical thinking and problemsolving abilities. Encouraging students to explore and experiment with digital tools enhances their confidence and proficiency in technology use, eventually enriching language learning outcomes. In conclusion, creatively integrating digital tools into language teaching not only enhances students' language acquisition but also fosters essential 21st-century skills such as critical thinking and intercultural competence.

- [8] T. Gajić i N. Maenza, "Mobile Applications in Teaching Foreign Languages in Tertiary Education," Teaching Innovations, t. 32, br. 4, pp. 133-142, 2019.
- [9] A.Gagić, T. Gajić, V. Gavranović, N. Maenza, and M. Veljković Michos, "Digital Tools for Language Learning: Exploring Teachers' Innovative and Engaging Practices" In Sinteza 2023 International Scientific Conference on Information Technology and Data Related Research, 2023.

# 7. REFERENCES

- [1] S. D. Krashen and T. Terrel, The Natural Approach: Language Acquisition in the Classroom., Oxford: Pergamon, 1983.
- [2] E. Suresh Kumar and P. Sreehari, "Computer Assisted Language Learning (CALL),"," in *Hand-book for English Language Laboratories*, Foundation Books, 2011.
- [3] B. Klimova, "An insight into online foreign language learning and teaching in the era of COVID-19 pandemic," vol. 192, pp. 1787-1794, 2021.
- [4] "European Commission," 2020. [Online]. Available: https://education.ec.europa.eu/focus-topics/digital-education/action-plan. [Accessed 2023].
- [5] "Okvir digitalnih kompetencija: Nastavnik za digitalno doba," 2019. [Online]. Available: https:// prosveta.gov.rs/wp-content/uploads/2019/08/2019\_ ODK\_Nastavnik-za-digitalno-doba.pdf. [Accessed on 14.04.2024].
- [6] M. Vidosavljević, "Iskustva nastavnika u vezi sa nastavom/učenjem na daljinu tokom pandemije Kovid-19," *Baština*, no. 56, pp. 435-449, 2022.
- [7] M. Veljković Michos and V. Bošković Marković, "
  Teachers' Perception of the Use of ICT in Foreign
  Language Teaching at a Higher Education Institution,"
  in Sinteza International Scientific Conference on
  Information Technology and Data Related Research,
  Beograd, 2020.