



XORIJY TILLARNI O'QITISHDA INNOVATSION YONDASHUVLAR NAZARIYANING AMALIYOTGA TATBIQI

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TECHNOLINGUISTIC ADVANCEMENTS IN ORACY: HARNESSING DIGITAL TOOLS TO ENHANCE SPEAKING SKILLS

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Abstract. This paper explores the role of technology in improving speaking skills in second language acquisition. With the rise of digital communication and artificial intelligence, learners now have unprecedented access to tools that can enhance their oral proficiency. Various digital platforms such as podcasts, video conferencing applications, speech recognition software, AI-powered assistants, virtual reality simulations, and language learning applications provide learners with opportunities to practice speaking in an interactive and engaging manner. These tools not only aid in pronunciation improvement and fluency but also create immersive learning environments where students can engage in real-life conversational scenarios. Furthermore, gamification elements and adaptive learning technologies ensure that language learners remain motivated and receive personalized feedback tailored to their specific needs. By synthesizing academic research and practical examples, this study highlights how educators and students can harness these innovations for linguistic advancements and discusses the challenges and opportunities associated with their implementation in language education.

Keywords: EFL (English as a foreign language), Immersive learning, Oral proficiency, GBL (Game-based learning), CMC (Computer-mediated communication).

Аннотация. В данной статье исследуется роль технологий в развитии навыков устной речи при изучении второго языка. С развитием цифровых коммуникаций и искусственного интеллекта у учащихся появился беспрецедентный доступ к инструментам, которые могут улучшить их разговорные навыки. Различные цифровые платформы, такие как подкасты, приложения для видеоконференций, программное обеспечение для распознавания речи, виртуальные помощники с ИИ, симуляции виртуальной реальности и языковые обучающие приложения, предоставляют учащимся возможность практиковаться в разговорной речи в интерактивной и увлекательной форме. Эти инструменты не только помогают улучшить произношение и беглость речи, но и создают иммерсивную учебную среду, где студенты могут участвовать в реальных диалогах. Кроме того, игровые элементы и адаптивные технологии обучения обеспечивают мотивацию учащихся и предлагают персонализированную обратную связь. Объединяя научные исследования и практические примеры, данное исследование демонстрирует, как преподаватели и студенты могут использовать эти инновации для языкового развития, а также обсуждает вызовы и возможности их внедрения в образовательный процесс.

Ключевые слова: EFL (Английский как иностранный язык), Иммерсивное обучение, Устная компетенция, Игровое обучение (GBL - Game-Based Learning), Компьютерно-опосредованная коммуникация (CMC - Computer-Mediated Communication).

Annotatsiya. Ushbu maqola texnologiyaning ikkinchi til sifatida nutq ko'nikmalarini rivojlantirishdagi rolini o'rganadi. Raqamli kommunikatsiya va sun'iy intellektning rivojlanishi



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bilan o'quvchilar til bilish qobiliyatlarini oshirishga yordam beradigan turli vositalarga kirish imkoniyatiga ega bo'ldi. Podkastlar, video konferensiyalar, nutqni tanish dasturlari, sun'iy intellekt yordamchilari, virtual reallik simulyatsiyalari va til o'rganish ilovalari o'quvchilarga interaktiv va qiziqarli tarzda gapirishni mashq qilish imkonini beradi. Ushbu vositalar nafaqat talaffuz va ravonlikni yaxshilashga yordam beradi, balki haqiqiy hayotiy muloqot ssenariylarini yaratish orqali til o'rganish jarayonini yanada samarali qiladi. Bundan tashqari, gamifikatsiya va adaptiv o'rganish texnologiyalari o'quvchilarni qiziqtiradi va ularga shaxsiylashtirilgan fikr-mulohazalar taqdim etadi. Ushbu tadqiqot ilmiy izlanishlar va amaliy misollarni birlashtirib, bu innovatsiyalar til o'rganish jarayoniga qanday ta'sir qilishini yoritadi hamda ularni ta'limga tatbiq etishdagi qiyinchilik va imkoniyatlarni muhokama qiladi.

***Kalit so'zlar:** EFL (Chet tili sifatida ingliz tili), Immersiv o'qitish, Og'zaki nutq qobiliyati, O'yin asosida o'qitish (GBL - Game-Based Learning), Kompyuter vositasida muloqot (CMC - Computer-Mediated Communication).*

INTRODUCTION. The ability to communicate fluently and confidently in a second language has become a crucial skill in today's globalized world. Proficiency in spoken communication is essential for academic success, career advancement, and social integration. However, traditional language learning methods often focus on grammar and written exercises, neglecting the importance of real-time oral practice. As a result, many learners struggle with pronunciation, fluency, and confidence when speaking in their target language.

The advent of digital technology has introduced a range of innovative tools that address this challenge by creating dynamic, interactive, and immersive language learning experiences. Digital language learning platforms, artificial intelligence-driven speech recognition software, and virtual reality environments have transformed how learners engage with spoken language. These tools provide instant feedback, simulate real-life conversations, and allow learners to practice speaking in stress-free settings. Furthermore, video conferencing applications enable students to interact with native speakers and participate in structured language exchange programs, thereby improving their conversational abilities.

Despite the numerous advantages of technology-enhanced language learning, challenges such as accessibility, digital literacy, and technological adaptation persist. The integration of digital tools in the classroom requires careful planning by educators to ensure they complement traditional teaching methods effectively. This paper explores the impact of technology on speaking skills, presents an analysis of various technological tools, and discusses their potential to revolutionize language education. Additionally, it examines existing research on the effectiveness of these



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tools and offers recommendations for optimizing their implementation in language learning curricula.

Advanced digital tools for strengthening speaking skills:

Technology helps and encourages the playfulness of learners and involves them in a different ways of learning. Technology gives learners a chance to engage independently, provide opportunities for self-paced interactions, privacy, and a safe environment where mistakes are corrected and exact feedback is given. Feedback helps the learners to exercise and focus on particular error which adds additional value by its ability. At present, there are number of qualitative feedback software's available on the web. On the other hand, links are provided for explanations, additional help, references, the value of technology is further augmented. The usage of Internet has brought tremendous change in the field of teaching and enhancing English learning. It is believed that people tend to forget everything within three days after they hear. It is the need of the hour to incorporate modern technologies to promote the level of English teaching. The current technologies lighten up the mind of the students to get into the subject with full involvement rather than a complex task to do. "New technologies in language learning by multiple intelligence and mixed abilities replace with old methods of teaching". The practice of Internet has brought fabulous change in the field of teaching and enhancing English learning. Language can be learnt by imitation and learnt as they speak in mother tongue¹.

Automatic speech recognition - Automatic Speech Recognition (ASR) technology, as a form of Computer-Assisted Pronunciation Training (CAPT), functions as a tool that deciphers and transcribes speech, allowing learners to study independently across various subjects². This technology converts spoken language into written text using statistical models, machine learning algorithms, and neural networks³. By training these models on extensive datasets of spoken language, ASR systems are able to recognize and transcribe speech with accuracy. Its applications extend beyond transcription services to include virtual assistants and language

¹ B.Waheeda Parveen (Asst. Prof of English, Srinivasa Ramanujan Institute of Technology, Anantapuramu.) USE OF TECHNOLOGY IN IMPROVING SPEAKING SKILLS.

² Levis, J., and Suvorov, R. (2014). Automated speech recognition. The encyclopedia of applied linguistics. Available at: <http://onlinelibrary.wiley.com/store/10.1002/9781405198431.wbeal0066/asset/wbeal0066.pdf?v=1&t=htq1z7hp&s=139a3d9f48261a7218270113d3833da39a187e74>

³ Loukina, A., Davis, L., and Xi, X. (2017). "Automated assessment of pronunciation in spontaneous speech" in Assessment in second language pronunciation (New York, NY: Routledge), 153–171.



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learning tools⁴. Modern ASR systems can deliver feedback at different linguistic levels—sentence, word, or text. The automated feedback may range from dismissing inaccurately pronounced phrases to pinpointing specific phonetic or stress-related issues⁵. This feedback mechanism enables learners to identify their pronunciation difficulties, a crucial step toward improvement, while also preventing the formation of persistent speech errors. Given that instructors in traditional language classrooms have limited capacity to conduct assessments and provide individualized feedback⁶, the automation of these processes stands out as one of ASR-based learning's major advantages.

Video conferencing

Video conferencing refers to a communication system that enables multiple participants in different locations to interact visually and audibly in real time through specialized equipment and a high-speed internet connection⁷. With ongoing improvements in online transmission quality and the decreasing cost of computer hardware, video conferencing has become increasingly accessible, particularly within the realm of distance education. Additionally, while video conferencing falls under the broader category of e-learning, it differs significantly from text-based computer-mediated communication (CMC). Unlike CMC, video conferencing incorporates audiovisual elements, preserving key aspects of face-to-face communication. These include non-verbal cues that aid interaction and the immediacy of responses, which create time constraints for participants as they process information and formulate responses in real time. Several researchers have explored the connection between video conferencing interactions designed to enhance foreign language speaking skills and psychological aspects such as confidence, anxiety, and communication apprehension. For instance, Kinginger investigated classroom discussions conducted between language learners in the United States and France through international video conferencing. The study aimed to examine the syntactic and discourse-related challenges encountered by American learners of French when communicating with native speakers. The findings indicated that much of the language produced during these exchanges was beyond the learners' proficiency level. This was partly

⁴ Chiu, T. L., Liou, H. C., and Yeh, Y. (2007). A study of web-based oral activities enhanced by automatic speech recognition for EFL college learning. *Comput. Assist. Lang. Learn.* 20, 209–233. doi: 10.1080/09588220701489374

⁵ Yu, D., and Deng, L. (2016). *Automatic speech recognition* (Vol. 1). Berlin: Springer.

⁶ Nguyen, L. T., and Newton, J. (2020). Pronunciation teaching in tertiary EFL classes: Vietnamese teachers' beliefs and practices. *TESL-EJ* 24:n1

⁷ Smith, S. 2003. Online videoconferencing: An application to teacher education. *JSTE E Journal* 18: 62–65.



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attributed to increased anxiety in the virtual classroom setting and differences between the formal French taught in American institutions and the natural speech used by educated native speakers.

AI. The integration of Artificial Intelligence (AI) into education has marked a major advancement in the way second languages are taught and learned. One of the most frequently observed findings is the effectiveness of chatbots and virtual assistants in facilitating conversational practice. These AI-powered systems provide learners with opportunities to engage in simulated interactions that closely mimic real-life conversations, significantly enhancing their fluency and confidence in speaking. Furthermore, AI-driven speech recognition technology and pronunciation training tools have been shown to positively influence learners' accuracy and intonation. Similarly, the instant and personalized feedback these tools provide not only improves students' speech recognition skills but also fosters a more independent and efficient learning experience. However, it is essential to acknowledge that integrating AI into language instruction still presents certain challenges. One major issue is the lack of adaptability to different learning styles and proficiency levels. Additionally, addressing cultural and linguistic biases in AI-driven tools remains a critical area requiring further attention. Accessibility barriers and limited availability of these technologies also raise concerns that need to be resolved to ensure that all learners can fully benefit from AI-enhanced language education. By examining these factors together, the findings of various studies offer a well-rounded perspective on how artificial intelligence is reshaping the process of acquiring second-language skills. Recognizing both the advantages and difficulties of AI integration in language education allows us to work toward a more efficient and inclusive approach to teaching languages today⁸.

Game-based learning (GBL)

Game-based learning (GBL) has rapidly developed in today's education. GBL is considered effective because of its affordance on digital social interaction, an improvement in students' efficacy⁹, and acceleration of various English skills¹⁰. A

⁸ Araceli Maritza Dávila Macías, Ecuador Diego Omar Armijos Solano, Ecuador Laura María Palma Perero, Ecuador Julio Andres Roca Panimboza, Ecuador Cristhian Joel Lucas Soledispa. THE POTENTIAL OF ARTIFICIAL INTELLIGENCE TO IMPROVE SPEAKING SKILLS IN A SECOND LANGUAGE (ENGLISH) FLUENTLY. (2024)

⁹ Lacka, E., Wong, T. C., & Haddoud, M. Y. (2021). Can digital technologies improve students' efficiency? Exploring the role of Virtual Learning Environment and Social Media use in Higher Education. *Computers and Education*, 163. <https://doi.org/10.1016/j.compedu.2020.104099>



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study in China shows that serious online GBL has significantly improved students' vocabulary compared to traditional games. This study specifically revealed the differences among three groups where the groups with serious game-aided treatment interacted better than those with traditional game treatment. GBL refers to games for learning whose aim is to create a fun and supportive atmosphere that can enhance student learning. Especially during the Covid-19 pandemic where students mostly study using online platforms, GBL is needed to reduce boredom and besides, and GBL increases meaningful interaction between teachers and students or among students¹¹. Various kinds of GBL have been introduced, ranging from traditional games, serious games, and online video games for higher education. All of these games were created to aid student learning at various levels of education. However, there has been limited specific studies on the use of GBL to enhance students' speaking skill has specifically pointed out that techniques and technologies of teaching Speaking have a backwash effect where students fail the language tests despite their learning of the language. There is a need to tailor between three organizational and pedagogical technologies of “cognitive dissonance”, “information gap” and “logical impasse” in the use of technology to teach Speaking. This finding contradicts the notion that the use of GBL for Speaking should improve students' communicative skills. There is a need to investigate the use of proper GBL for English Speaking skills, especially in higher education, that results in students' interactive ability to perform meaningful communication. In this case, enhancing students' speaking skills can be investigated through their cognitive, affective, and psychomotor domains during the GBL¹².

Podcast as Language Learning Material

In this global era, being able to speak English is essential for people to communicate with global community. To help non native speakers to learn to speak this language, there are many kinds of technologies invented. According to Marshall, new opportunities can be gained by using technology. It offers users to connect with

¹⁰ Amorim, A. N., Jeon, L., Abel, Y., Albuquerque, E. X. S., Soares, M., Silva, V. C., & Oliveira Neto, J. R. (2022). Escribo play learning games can foster early reading and writing for low-income kindergarten children. *Computers and Education*, 177. <https://doi.org/10.1016/j.compedu.2021.104364>

¹¹ Madland, C., & Richards, G. (2016). Enhancing student-student online interaction: Exploring the study buddy peer review activity. *International Review of Research in Open and Distance Learning*, 17(3). <https://doi.org/10.19173/irrodl.v17i3.2179>

¹² Barr, M. (2018). Student attitudes to games-based skills development: Learning from video games in higher education. *Computers in Human Behavior*, 80, 283–294. <https://doi.org/10.1016/j.chb.2017.11.030>



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people around the world and gives a lot of unique perspectives and experiences. There are a ton technologies invented, and one of those which provides material for language learning is called the podcast. The podcast, an uploading audio or video file to the internet, has emerged as sources in the academic field, and it provides many kinds of material in learning. The podcast is a recorded materials can boost students' motivation and help them become more independent and confidence in speaking. By using podcast media, the teacher can support the students in building self-confidence and the learning situation enjoyable. This self-confidence may be raising due to their ability to understand the rhetoric of a particular topic as a result of listening repetition dan oral performance. This understanding makes them find the learning process is enjoyable. This study assumes that the podcast media gives contribution for the students in improving their speaking performance.

CONCLUSION

The integration of technology into language learning has significantly transformed the development of speaking skills. Digital tools such as AI-powered speech recognition software, video conferencing platforms, virtual reality simulations, and gamified language applications have revolutionized the way learners practice and improve their oral communication abilities. These innovations offer personalized, interactive, and immersive experiences that traditional methods cannot fully provide. However, the successful implementation of these technologies requires thoughtful integration into language curricula, ensuring that they complement rather than replace conventional teaching methods. While digital tools can enhance pronunciation, fluency, and confidence, human interaction remains a crucial component of effective language learning. Educators must carefully design lesson plans that balance the use of technology with direct teacher-student engagement and peer-to-peer communication. Despite the remarkable benefits, challenges such as technological accessibility, student motivation, and the digital divide must be addressed. Schools and institutions should provide adequate training for both educators and learners to maximize the benefits of these digital tools. Future research should explore how AI and machine learning can further enhance personalized language instruction and create adaptive learning environments that cater to individual learners' needs. *In conclusion*, as technology continues to evolve, its role in language education will only expand, offering innovative solutions to improve speaking skills and bridge communication gaps in a multilingual world. The collaboration between educators, researchers, and technologists will be essential in



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shaping the future of digital language learning, ensuring that students worldwide can access high-quality and effective speaking practice opportunities.

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