

THE INTEGRATION OF VIDEO CONTENT AND ARTIFICIAL INTELLIGENCE IN THE DEVELOPMENT OF LISTENING SKILLS AMONG HIGHER EDUCATION STUDENTS WHEN LEARNING FOREIGN LANGUAGES

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Summary

This article examines the specific features of integrating video content and artificial intelligence technologies into the process of developing listening skills among higher education students whilst they are learning foreign languages. The relevance of the study stems from the need to modernise foreign language training for future specialists in the context of the digital transformation of education, the development of artificial intelligence, and the growing role of multimedia technologies in the learning process. In the course of the study, the authors identified the main components of listening competence, determined the didactic potential of authentic video content, and analysed the potential of artificial intelligence tools for personalising learning, providing adaptive support, and enhancing the effectiveness of listening skills development. It has been established that the combination of multimodal video resources with artificial intelligence technologies contributes to improving the perception of foreign-language speech, the development of intercultural competence, increased motivation to learn foreign languages, and the formation of autonomous learning skills. The scientific novelty of the study lies in substantiating the feasibility of the comprehensive integration of video content and artificial intelligence technologies as means of developing the listening competence of higher education students and determining their impact on the quality of foreign language training in a digital educational environment.

Key words: listening skills; video content; artificial intelligence; foreign languages; higher education students; digital technologies; the educational process.

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1. Introduction

The current stage of development in higher education is characterised by a large-scale digital transformation of the educational landscape, the active introduction of innovative teaching technologies, and the widespread use of digital resources in the professional training of

students. In the context of globalisation, the internationalisation of the educational environment and the rapid development of information and communication technologies, the issue of developing foreign language communicative competence has become particularly relevant, with listening competence being a key component of this. It is precisely the ability to effectively perceive, understand, analyse and interpret spoken foreign-language discourse that ensures successful intercultural communication, the professional mobility of future specialists and their competitiveness in the international labour market.

In the modern context, listening competence is viewed not merely as the ability to understand heard information, but as a complex integrative phenomenon encompassing cognitive, linguistic, sociocultural and communicative components (*Vikowych, 2009*). It involves the learner's ability to perceive authentic speech in various communicative situations, recognise linguistic and non-linguistic cues, interpret the interlocutor's intentions, take into account the sociocultural context of communication, and respond promptly to the information received. In this regard, the search for effective pedagogical tools for developing listening competence is one of the priority areas of modern foreign language teaching methodology.

Of particular importance in this process is the integration of video content and artificial intelligence technologies, which significantly expand the possibilities for developing listening skills. The use of authentic video materials creates conditions for the simultaneous engagement of auditory and visual channels of information perception, which has a positive impact on the quality of comprehension of foreign-language speech. The authors of the study (*Kozhevin, Pysanko, 2025*) note that video content allows learners not only to hear native speakers but also to observe non-verbal means of communication, peculiarities of speech behaviour, intonation patterns, facial expressions and gestures of interlocutors. Such a multimodal presentation of information facilitates a deeper understanding of the message's content and the formation of a holistic picture of a real foreign-language environment.

It should be noted that the development of listening skills in a digital learning environment has undergone significant changes compared to traditional approaches to foreign language teaching. Whereas previously the main tools for developing listening skills were audio recordings and direct interaction with the teacher, today the educational process actively utilises video conferencing, interactive online platforms, multimedia resources, podcasts, video lectures, educational YouTube channels, TED Talks and other digital formats. As a result, learners gain access to a wide variety of authentic speech samples, which significantly expands the opportunities for developing listening competence.

An analysis of academic research suggests that, alongside its numerous advantages, the digitalisation of the educational process also presents certain challenges. These include the excessive information overload of the digital environment, an insufficient level of self-directed learning skills, the difficulty of selecting high-quality authentic content, and the limited capacity of traditional platforms to provide personalised learning support. This is precisely why the combination of video content and artificial intelligence technologies allows these shortcomings to be partially offset through the automated adaptation of learning materials, the monitoring of learning outcomes, and the creation of personalised learning pathways.

Authentic video materials are of particular value for developing listening skills, as they immerse learners in a natural language environment. When working with video content, students are exposed to real-life speech patterns, pronunciation nuances, speech rate, cultural norms of communication, and the social contexts in which language is used. Furthermore, video materials help to boost motivation for learning a foreign language, as well as fostering critical thinking, communicative engagement and intercultural competence.

To summarise, the integration of video content and artificial intelligence into the process of developing listening skills among higher education students is a promising direction for modernising foreign language training. Combining the capabilities of multimedia technologies with adaptive artificial intelligence mechanisms makes it possible to create an effective educational environment focused on developing listening skills, increasing motivation to learn and ensuring a high level of foreign language communication training for future professionals.

2. The nature and structure of auditory competence among higher education students

In the current context of higher education development, the issue of developing students' listening skills has become particularly relevant and is regarded as one of the key areas in the foreign language training of future professionals. The rapid processes of globalisation, the digital transformation of society, the internationalisation of education and the expansion of international academic cooperation are placing new demands on the level of foreign language proficiency. A modern graduate of a higher education institution must be able to effectively perceive, analyse and interpret spoken foreign language communication in a variety of professional and socio-cultural situations. This is precisely why the development of listening skills is regarded as a key component in the development of foreign language communicative competence and intercultural interaction. Listening competence ensures the successful comprehension of authentic spoken messages and contributes to the development of oral communication skills, critical thinking and professional mobility. In the context of Ukraine's integration into the European educational area, improving the effectiveness of developing listening competence among higher education students has become a key task for contemporary pedagogical science and practice.

The issue of developing listening competence among students has long been a focus of attention for both domestic and international researchers. Significant contributions to research into the didactic potential of audiovisual content and foreign language teaching materials have been made by scholars such as B. Baskin, K. Beers, J. Brown, T. Hipple, R. Casbergue, F. Serafini, K. Harris and others. In their works, they demonstrate the effectiveness of using multimedia resources, audiovisual technologies and interactive teaching aids to develop foreign language communicative competence, increase motivation to learn and improve listening comprehension skills.

An analysis of contemporary research allows us to identify several key areas of development in the methodology for fostering listening competence in the context of the digitalisation of education. The first direction relates to the use of authentic audio and video content as an effective tool for developing listening skills, with notable contributions from researchers such as O. Malushko, R. Vikovich, M. Vorobyova and others. The academic literature highlights the potential for using podcasts, video lectures, interviews, television news, feature films, educational videos, journalistic texts and other multimedia resources to develop learners' ability to comprehend authentic foreign-language speech in real-life communicative situations. Contemporary researchers are increasingly focusing on the use of platforms such as YouTube, TED Talks, BBC Learning English, Coursera and other digital resources that provide access to a variety of speech samples and cultural contexts.

The second area of research concerns the organisation and promotion of learners' independent learning activities using digital technologies (N. Gupka-Makogin, S. Dudushkina, L. Shevkoplias). Researchers emphasise the need to develop autonomous learning skills, the ability to independently work through foreign-language audiovisual content, and the use of online listening platforms, mobile applications and interactive learning environments. This area has become particularly relevant due to the spread of distance and blended learning, which

requires higher education students to demonstrate a high level of self-organisation and responsibility for the outcomes of their own learning activities.

In modern foreign language teaching methodology, listening competence is regarded as an integrative personal characteristic that enables the ability to effectively perceive, understand, interpret and use information received through spoken foreign language communication. An analysis of scientific research provides grounds for identifying four interrelated components of auditory competence in higher education students: motivational-value, cognitive, operational-activity and sociocultural (*Kozhevin, Pysanko, 2025; Mamachych, 2023*):

1. Motivational-value component. The motivational-value component reflects the learner's attitude towards the listening process, their readiness to perceive foreign-language speech, and their awareness of the importance of listening skills for professional and intercultural communication. This component encompasses intrinsic motivation to learn a foreign language, cognitive interest in authentic foreign-language content, a desire for self-improvement, and a readiness for lifelong learning. A high level of development of the motivational-value component ensures the active participation of learners in educational activities and contributes to the effectiveness of developing listening competence.

2. Cognitive component. The cognitive component characterises the system of knowledge required for the successful perception and comprehension of foreign-language speech. It includes linguistic knowledge (lexical, grammatical, phonetic), knowledge of the characteristics of native speakers' speech behaviour, as well as knowledge of listening strategies. This component ensures the learner's ability to analyse the information heard, establish logical connections between individual elements of the message, and predict the content of the utterance based on context.

3. Operational-activity component. The operational-activity component encompasses practical listening skills and abilities. These include the ability to recognise speech units by ear, identify the main and detailed information in a message, interpret the content of a statement, use various listening strategies depending on the communicative situation, and critically evaluate the information received. It is this component that ensures the practical implementation of listening activities in real-life situations of foreign-language communication.

4. The sociocultural component. The sociocultural component involves the ability to interpret spoken language, taking into account the cultural, social and behavioural characteristics of native speakers. It includes knowledge of cultural norms, traditions, the characteristics of intercultural communication, non-verbal means of communication, and the national and cultural specifics of speech behaviour. The development of this component facilitates an adequate understanding of authentic speech and ensures effective intercultural interaction.

To summarise the above, the listening competence of higher education students is a complex, integrated construct that combines motivational and value-based attitudes, a system of linguistic knowledge, practical listening skills and sociocultural awareness. The comprehensive development of these components is a prerequisite for the formation of a high level of foreign language communicative competence in a digital educational environment.

3. The educational potential of video content and artificial intelligence in the development of listening skills

In today's educational landscape, the development of higher education students' listening skills is increasingly linked to the use of multimedia technologies, authentic video content and artificial intelligence tools. This approach is driven not only by the rapid digitalisation of

education, but also by changes in the nature of communication within society, where information is predominantly presented in a multimodal format. In a real-life communicative environment, the process of listening is almost never isolated from other channels of information reception. A person simultaneously perceives the interlocutor's speech, their facial expressions, gestures, intonation, visual context and other non-verbal signals that help to interpret the content of the message more accurately. This is precisely why the integration of video content into the process of foreign language learning brings educational activities closer to the real conditions of intercultural communication.

An analysis of academic research (*Bilianska, 2017; Hupka-Makohin, 2016*) and my own teaching experience leads to the conclusion that the use of video content creates favourable conditions for the simultaneous engagement of auditory and visual channels of information perception. The combination of sound, images, textual elements and contextual cues significantly enhances the effectiveness of understanding foreign-language speech. Visual support helps learners predict the content of a statement, compensate for gaps in vocabulary or grammar knowledge, and better understand the speaker's communicative intentions. Thus, the multimodal nature of video content contributes to the development not only of listening skills but also of critical thinking, intercultural competence and communicative readiness for real-life interaction in a foreign language.

Authentic video resources are of particular importance in today's context, including educational YouTube channels, TED Talks, BBC Learning English, National Geographic, video-accompanied podcasts, interviews, documentaries and feature films. Such materials allow learners to engage with the natural speech of native speakers, and to perceive different accents, intonational features, speech rates and communication styles. Furthermore, authentic video content contributes to the development of the sociocultural component of listening competence, as it familiarises learners with the cultural norms, traditions, behavioural patterns and values of the target-language society.

Among promising tools, Automatic Speech Recognition (ASR) systems, adaptive learning platforms, chatbots and virtual interlocutors attract particular attention. Such technologies create conditions for interactive engagement between learners and educational content, simulate real-life communication situations and contribute to the development of skills in perceiving spoken language in various communicative contexts. Thanks to artificial intelligence, the learning process becomes more flexible, adaptive and tailored to the individual needs of learners.

The use of digital listening diaries deserves special attention. In today's environment, traditional listening diaries can be integrated with artificial intelligence technologies, which significantly expands their educational potential. An audio diary allows learners to systematically record the results of their work with video and audio materials, self-assess their level of comprehension, analyse their own difficulties and track the development of their listening skills. The use of artificial intelligence tools makes it possible to automate the analysis of such records, identify gaps in learning, and offer personalised recommendations for further improvement of listening skills. It should be noted that modern information and communication technologies have significantly changed approaches to teaching listening. Problems that previously limited the effective use of audio materials—in particular, poor recording quality, difficulty accessing authentic content, and insufficient technical resources in the educational process—are now virtually irrelevant. Thanks to the development of mobile internet, cloud technologies, smartphones and tablets, learners now have the opportunity to work with learning materials anywhere and at any time. This creates the conditions for the implementation of the concept of lifelong learning and promotes the development of autonomy in foreign language learning.

Thus, the combination of video content and artificial intelligence technologies forms a new educational environment focused on developing the listening skills of higher education students. The use of multimodal resources ensures the authenticity of the learning process, increases motivation to study foreign languages and contributes to the development of effective intercultural communication skills. At the same time, artificial intelligence tools create conditions for personalised learning, ensuring individual support and enhancing the effectiveness of listening skills development. Taken together, this allows us to view the integration of video content and artificial intelligence as one of the most promising avenues for modernising foreign language education in the context of society's digital transformation.

4. Conclusions

In the course of this study, the authors have analysed contemporary academic approaches to the development of listening competence among higher education students, explored the educational potential of video content and artificial intelligence technologies in foreign language learning, and identified their role in enhancing the effectiveness of foreign language training in the context of the digital transformation of education. Based on an analysis of domestic and foreign academic sources, it has been established that listening competence is one of the key components of foreign language communicative competence, as it ensures that students are able to effectively perceive, interpret and use information received through spoken language in real-life communicative situations. The relevance of the study is driven by the rapid development of digital technologies, the widespread introduction of artificial intelligence into the educational process, the proliferation of distance and blended learning, as well as the need to train competitive specialists capable of effective intercultural communication in a globalised world. Under these conditions, traditional approaches to the development of listening skills require modernisation through the integration of modern digital tools, which ensure a higher level of personalisation of learning, accessibility of educational resources, and motivation for learners to study foreign languages. The study found that the use of authentic video content helps to create a language environment close to reality, combines auditory and visual channels of information perception, improves comprehension of foreign-language speech, and contributes to the development of sociocultural competence. Video materials allow learners to observe the characteristics of native speakers' speech behaviour, intonation patterns, non-verbal means of communication and cultural features of the foreign-language environment, which has a positive impact on the development of listening skills. At the same time, it has been proven that artificial intelligence technologies significantly expand the possibilities for developing listening competence through the personalisation of the educational process, the adaptation of learning content to learners' individual needs, automated assessment of learning outcomes, and the provision of immediate feedback. Adaptive educational platforms, automatic speech recognition systems, generative language models and virtual assistants demonstrate particular effectiveness, as they create conditions for active interaction between learners and the learning material and promote the development of autonomy in learning. The paper substantiates the feasibility of the comprehensive integration of video content and artificial intelligence as complementary tools for developing auditory competence.

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