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AI-SUPPORTED PEER COLLABORATION IN LISTENING ACTIVITIES: EFFECTS ON COMPREHENSION AND INTERACTION

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Abstract: This study examines the impact of Artificial Intelligence (AI)-supported peer collaboration on listening comprehension and interactive communication among Uzbek secondary school EFL learners. In a five-week intervention, students engaged in structured group and pair activities using AI tools such as speech-enabled chatbots, adaptive listening platforms, and real-time feedback systems (e.g., ChatGPT, Listenwise, Google Read-Aloud). Compared to a control group that followed textbook-based individual listening tasks, the experimental group showed significantly greater gains in listening comprehension and interactive discourse features, including clarification, paraphrasing, and turn-taking. AI tools played a facilitative role in reducing learner anxiety, increasing motivation, and mediating peer discussions. Furthermore, structured peer roles enhanced collaborative task management and promoted deeper engagement. However, challenges such as unequal access to devices, intermittent connectivity, and over-reliance on AI responses were observed. The study concludes that AI-enhanced peer collaboration offers a promising and inclusive approach to improving listening skills in EFL classrooms when supported by adequate infrastructure, teacher guidance, and curriculum alignment.

Keywords : Artificial Intelligence, listening comprehension, peer collaboration, EFL learning, Uzbekistan, interactive communication, speech-enabled tools, digital pedagogy, real-time feedback, ChatGPT, blended learning.

The integration of Artificial Intelligence (AI) into collaborative learning environments has opened new possibilities for enhancing listening comprehension and peer interaction in English as a Foreign Language (EFL) classrooms. In the context of Uzbekistan's secondary education system, where traditional teacher-centered methods often dominate, AI-supported peer collaboration offers an innovative and engaging approach to developing listening skills. This study explores the effects of AI-facilitated peer collaboration on students' listening comprehension and interactive competence, using a range of intelligent technologies including voice-enabled chatbots, automated feedback systems, and adaptive listening platforms.

The research was conducted with a group of 40 ninth-grade EFL students at a public school in Samarkand. The students were divided into two groups: an experimental group that used AI-supported tools in pair and group listening activities, and a control group that practiced listening through textbook-based, individual exercises. Over a period of five weeks, the experimental group engaged in a series of structured tasks where students listened to AI-generated dialogues, answered comprehension questions collaboratively, and received real-time feedback through platforms like Listenwise, Google AI Read-Aloud, and ChatGPT integrated with speech-to-text functions. These activities were designed to prompt discussion, negotiation of meaning, and joint problem-solving.

Quantitative data from pre- and post-tests revealed a statistically significant improvement in listening comprehension scores among students in the experimental group compared to the control group. Furthermore, qualitative observations and recorded transcripts from group discussions showed an increase in interactive behaviors such as clarification requests, paraphrasing, and the use of English discourse markers. Students who engaged with AI tools were more likely to self-correct their understanding based on peer suggestions and AI feedback. They also demonstrated more initiative in coordinating task roles and managing group interactions, suggesting an increase in communicative confidence.

One of the key advantages observed was the way AI acted as a mediating agent in peer interaction. The availability of immediate feedback, audio replay options, and contextual hints from AI systems reduced the cognitive load on learners and allowed them to focus more on processing meaning and collaborating with peers. Students reported that the AI tools created a "non-judgmental" learning space where they could make mistakes, reflect, and try again without fear of embarrassment. This contributed to a lower affective filter, especially for lower-proficiency learners.

Another important finding was the role of structured peer roles. When students were assigned specific responsibilities—such as "listener leader," "feedback checker," or "AI navigator"—collaboration became more effective. The combination of human-human and human-AI interaction created a blended learning experience that supported both skill acquisition and social development. Many students noted that they preferred listening in pairs or groups with AI support over doing it alone or with just a teacher, citing reasons such as peer encouragement, shared accountability, and the novelty of using technology in a social context.

Despite the overall positive outcomes, several challenges were identified. Technical limitations such as slow internet, lack of headphones, and uneven digital literacy among students occasionally disrupted the flow of activities. Teachers also required training to facilitate these new formats of instruction effectively and to troubleshoot technological problems. Additionally, some students over-relied on AI suggestions rather than actively engaging with the listening content or discussing it with peers, indicating the need for guided scaffolding and teacher intervention.

The results suggest that AI-supported peer collaboration is a promising model for improving both comprehension and interactive competence in EFL listening instruction. It enhances not only the cognitive dimension of listening but also the social aspects of learning, making students more active participants in their educational journey. For successful implementation, however, schools must invest in digital infrastructure, provide teacher training, and ensure equitable access to devices and internet.

In conclusion, the use of AI tools in peer-based listening tasks fosters deeper comprehension and richer interaction among Uzbek EFL students. By combining technological innovation with collaborative pedagogy, educators can transform listening from a passive skill into a dynamic, engaging, and socially situated learning experience. This approach aligns with contemporary views of language learning as a process that is both cognitively and socially constructed, and it holds great potential for curriculum innovation in Uzbekistan and beyond.

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