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THE ROLE OF AN ARTIFICIAL INTELLIGENCE IN ADVANCING LISTENING COMPREHENSION AMONG EFL STUDENTS

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Annotatsiya. Ushbu tadqiqot Sun’iy intellektning (AI) O‘zbekistondagi yettinchi sinf ingliz tilini chet tili sifatida o‘rganuvchi o‘quvchilarning tinglab tushunish ko‘nikmalarini rivojlantirishdagi ta’sirini o‘rgandi. Kvazi-eksperimental dizayn bilan birgalikda analitik tahliliy metoddan foydalanib, maxsus o‘qish ko‘nikmalarini baholovchi test asosida 50 nafar o’quvchidan 30 nafari saralab olindi. Ishtirokchilar ikkita guruhga bo‘lindi : tajriba guruhi sun’iy intellektdan foydalangan holda, nazorat guruhi esa an’anaviy metodlar yordamida o'qitildi. Tadqiqot 2024–2025 o‘quv yilining birinchi semestrida 24 dars davomida o‘tkazildi. Tinglab tushunish ko‘nikmalari dastlabki, oraliq va yakuniy testlar orqali sinovdan o‘tkazilib, asosiy uchta jihatiga e’tibor qaratildi: tovushni idrok etish, so‘zlarni tanib olish, gapni tushunish. Statistik tahlil natijalari shuni ko‘rsatdiki, tajriba guruhining tinglab tushunish ko‘nikmalarida nazorat guruhnikiga nisbatan ijobiy o‘zgarishlar kuzatildi.
Kalit so’zlar: Sun'iy intellekt (AI), tinglab tushunish ko‘nikmalari, chet tili sifatida ingliz tili (EFL), kvazi-eksperimental dizayn, yettinchi sinf o‘quvchilari, tajriba guruhi, nazorat guruhi.

Аннотация. В этом исследовании изучалось влияние искусственного интеллекта на развитие навыков понимания на слух у учащихся седьмых классов изучающих английский как иностранный язык в Узбекистане. 30 из 50 учащихся были отобраны на основе теста, который оценивает специальные навыки речи с использованием аналитического метода в сочетании с квази - экспериментальным дизайном. Участники были разделены на две группы: экспериментальная группа обучалась с использованием искусственного интеллекта, а контрольная группа обучалась традиционными методами. Исследование проводилось в течение 24 занятий в первом семестре 2024-2025 учебного года. Навыки аудирования и понимания проверялись с помощью предварительных, промежуточных и итоговых тестов, внимание уделялось трём основным аспектам: восприятию звука, распознаванию слов и

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пониманию предложений. Результаты статистического анализа показывают, что наблюдались положительные изменения в навыках понимания речи на слух у экспериментальной группы по сравнению с контрольной группой.

Ключевые слова: искусственный интеллект (AI), навыки понимания на слух, английский как иностранный язык (EFL), квази - экспериментальный дизайн, семиклассники, экспериментальная группа, контрольная группа.

Abstract. This study investigates the impact of Artificial Intelligence (AI) on developing listening skills in seventh-grade English as a Foreign Language (EFL) students in Uzbekistan. A quasi-experimental design with an analytical description method was applied, involving 30 students selected from 50 based on a listening proficiency test. The participants were divided into an experimental group, which utilized AI-assisted learning, and a control group, which followed traditional listening instruction. The experiment lasted for 24 sessions during the first semester of the 2024–2025 academic year. Listening proficiency was tested through pre-test, mid-test, and post-test evaluations, focusing on three key areas: sound awareness, word recognition, and sentence understanding. Statistical analysis of test results showed that the experimental group demonstrated improvements in listening comprehension compared to the control group.

Keywords: Artificial Intelligence (AI), EFL Listening Skills, quasi-experimental design, seventh-grade students, experimental group, control group.

INTRODUCTION

In the past, many people thought that the Internet would completely replace teachers, making traditional education unnecessary. They believed that since all information could be found online, there would be no need for teachers. However, this prediction was incorrect. While the Internet has become a valuable learning tool, it has not replaced teachers. Instead, it has expanded educational opportunities by providing greater access to resources, making learning more flexible and interactive.

Similarly, some believe that AI could take over teaching completely, replacing the need for human instructors. However, this idea is similar to past misconceptions about the Internet. AI certainly enhances learning by making lessons more engaging and personalized, but it works best when used alongside traditional teaching methods. AI tools should support, not replace, teaching because understanding culture and emotions requires a human touch, combining AI efficiency with teacher expertise [1]. AI tools are more effective when combined with traditional teaching

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methods, as learners benefit from teacher guidance and discussions before and after using AI exercises [2].

Listening involves understanding speakers, processing information, and responding with imagination and empathy. Listening aids language learning and allows students to communicate and participate in class [3]. Listening is important for learning a language, but it gets the least attention in EFL classes [4]. Many learners find listening hard due to anxiety with fast speech or accents, but AI tools can help by adjusting difficulty and offering features like pause-and-replay or slowing down speech [5]. AI boards can include different resources like TV shows, YouTube videos, articles, and social media, helping learners hear different accents and ways of speaking in real-life situations [6].

Despite the potential benefits of AI in EFL listening instruction, there is still limited research on its effectiveness in improving listening comprehension among middle school learners. While studies have examined AI's role in enhancing vocabulary, pronunciation, and reading skills, fewer investigations focus on how AI tools impact listening skills in younger learners. This study aims to examine the impact of AI-assisted listening instruction on 7th-grade EFL students by comparing it with traditional listening instruction. Specifically, it aims to explore whether AI tools can improve listening comprehension more effectively than conventional methods and to understand students' perceptions of AI in their learning process.

In order to achieve this, an experimental research design will be used, involving two groups of 15 students. The experimental group will engage with AI-based activities, while the control group will follow a traditional teacher-led approach. Listening comprehension tests will be conducted before and after the intervention to measure improvement.

METHODS

A quasi-experimental approach and analytical description method were used for this investigation, which included both an experimental and a control group. Thirty seventh-grade EFL selected among fifty students studying English as a Foreign Language at school number twenty-two, Uzbekistan. The program lasted for 24 sessions in the first semester of 2024-2025 from October to November. The participants were boys and girls from similar social and academic settings. The test was given to 50 students at the same time and level. Based on the results, 30 students (13 girls & 17 boys) were selected and divided into two groups of 15 with nearly the similar listening level.

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The test was divided into three types of questions that were answered by pupils. In the first section, the participants' ability to differentiate between English sounds was measured through 10 questions (Sound Awareness). In the second section, the ability to recognize word and sentence meaning was assessed through three passages, each containing two questions (Word & Meaning). In the third section, four questions with different grammatical structures were given to assess the participants' skill in using correct grammar (Sentence Understanding), (Table 1).

$$\text{Test time} = \frac{\text{The sum of each pupil's time (1260)}}{\text{Pupils' number (30)}}$$

Accordingly, the test duration was set to 45 minutes . The listening test consists of 85 marks: 30 for "Sound Awareness", 30 for "Word & Meaning", and 25 for "Sentence Understanding".

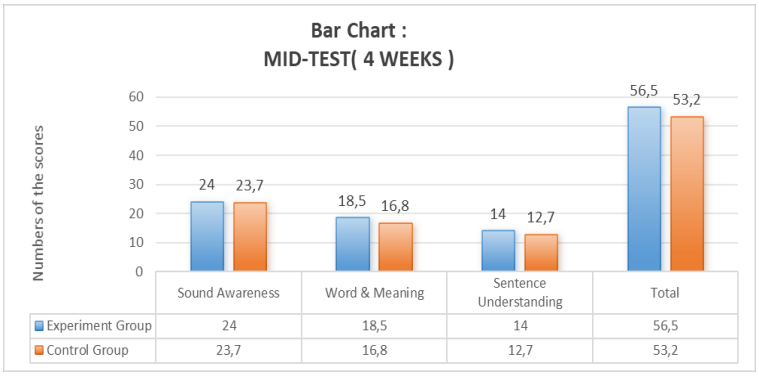
Table 1:

No	Groups	Sound Awareness	Word & Meaning	Sentence Understanding	Overall	Difference
1	Experiment	18	13,5	11	42,5	No significant diffirence
2	Control	17,2	15	12	44,2	

The program was started in fourth of October andition book "Teens' English 7" [8] and also special activities were prepared with the help of board browsers. AI-assisted listening lessons had three stages. Before listening – students contemplated the topic, set expectations, and answered online questions using an AI board. During listening – students identified sounds through activities, comprehended words, and noted key areas. Accordingly, to carry out tasks on digital devices or present to the class, they utilized AI-based tools like a pen, highlighter, and camera. Other than that, students assessed themselves by going over their answers. After listening – students revised their answers, discussed them with the professor while collaborating in groups, and applied AI tools, whereas the Control group learns traditionally without AI - students listen recordings, take tests from the new edition book "Teens' English 7", and follow structured teacher-led method.

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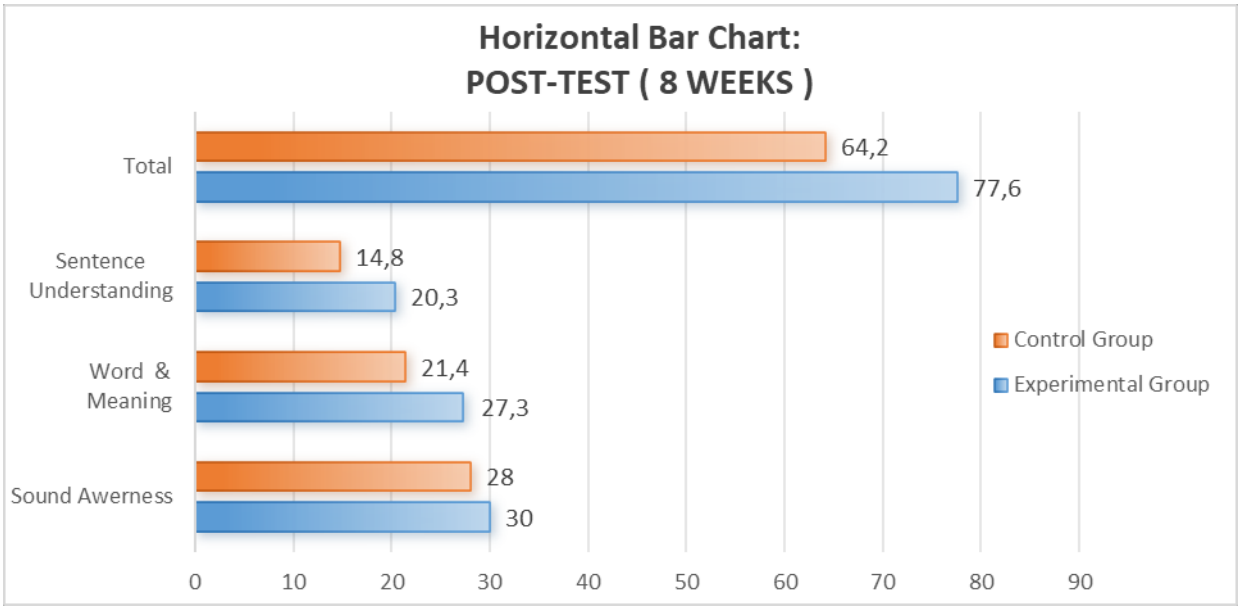
Four weeks following the first administration, a new test was administered again to the same groups. Then all scores were placed in the same category; compared with each other and the previous ones in the bar chart given below:



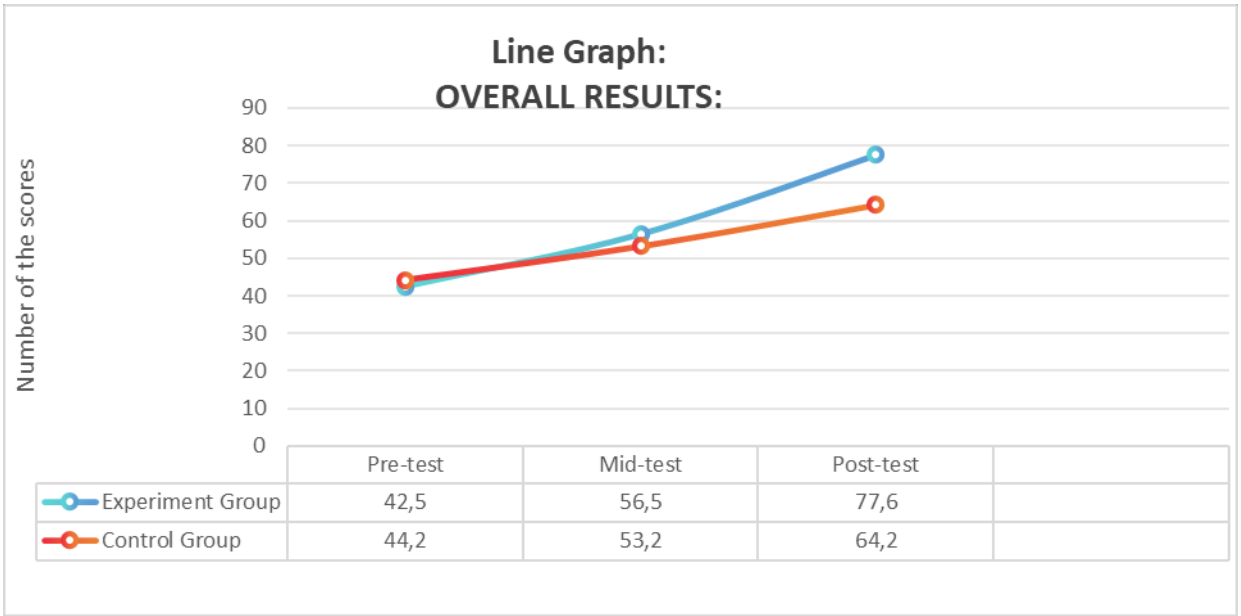
The graphic representation clearly shows that there is a statistical difference between the scores of the control and experimental groups in overall listening comprehension skills graphically.

While the experimental group also developed technical and digital skills during the study, the primary goal of the experiment was to enhance listening skills.

Four weeks after the mid-test, a post-test was conducted for both groups at the same level on November 29. This test aimed to calculate their overall listening skills, compare the results, and assess the progress made during the experiment. The results are presented in the horizontal bar chart and line graph below:



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As shown in the line graph, the control group's results were slightly higher than the experimental group's at first. However, throughout the experiment, the teaching methods had a significant impact on students' listening skills. There is a noticeable difference between the pre-test and post-test results. The control group's scores increased by 20 points, while the experimental group's results improved by 35. This indicates that integrating Artificial Intelligence into EFL teaching can be more effective than traditional methods.

RESULTS

Although both groups showed progress, AI-assisted teaching proved to be both effective and efficient because various AI tools were used to give students more time to interact with activities, read texts, watch videos, and check their answers under teacher guidance. The combination of technology and teacher support made lessons more meaningful, peaceful, and enjoyable. AI also increased student motivation and participation, making learning more exciting and engaging. Lessons became well-structured after incorporating pictures, sounds, and videos. Since videos could be paused, replayed, and shared, professors could interpret challenging and unclear parts of the lesson. Students received additional support through online dictionaries and multimedia links, which helped them understand difficult words and concepts.

DISCUSSION

Students were guided to focus on the meaning of messages rather than just words. Teachers could use digital transcripts, exercises, and various tools to explain topics more effectively, ensuring students had different ways to process information.

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AI provided immediate feedback, allowing students to check their answers and correct mistakes. This system encouraged students to take responsibility for their learning while still receiving teacher support when needed. Lessons became smoother and more interactive, reducing frustration and improving classroom engagement. AI-supported activities reinforced learning in a natural and enjoyable way. Despite the positive results, this study has some limitations: the experiment lasted only two months, which may not be sufficient to assess long-term effects and the study was conducted with a small sample size (30 students), limiting generalizability. The effectiveness of artificial intelligence (AI) should be examined in different areas of language learning, such as reading, writing, and speaking. New AI programs and various teaching methods should be used to better understand AI's impact on English as a Foreign Language (EFL) education. The effectiveness of AI should also be tested across different age groups and student populations from various countries to assess its adaptability and usefulness.

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