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Problems of Developing Communicative Competence Through Mobile Applications in The Educational Process

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ABSTRACT

Objective: This study aims to analyze the development of students' communicative competence through the use of mobile applications in the educational process. **Method:** A descriptive and analytical approach was applied to evaluate the pedagogical potential of mobile platforms such as Duolingo, Google Classroom, Kahoot, and Telegram, focusing on their role in promoting interactive communication and learner engagement. **Results:** The analysis reveals that mobile applications significantly enhance students' communicative competence by providing interactive, flexible, and learner-centered environments. However, the study also identifies methodological, technical, pedagogical, and psychological challenges that limit optimal integration and emphasizes the need for more empirical research on this topic. **Novelty:** This article contributes to educational methodology by presenting a comprehensive analysis of mobile-assisted learning tools as facilitators of communicative competence, highlighting both their pedagogical value and the current research gap in technology-mediated language education.

INTRODUCTION

In recent years, the rapid development of information and communication technologies has led to the introduction of radically new approaches to the educational process. In particular, the issue of teaching using mobile applications, increasing the efficiency of students' learning and developing their communicative competence has become an urgent scientific problem.

Computerization processes began in the second half of the 20th century, and at the beginning of the 21st century, mobile technologies and smartphones became widely popular and became one of the main tools used in the educational process. At the same time, communicative competence - that is, a person's ability to communicate, express his opinion clearly, and work effectively with others - is considered the main factor of success in today's globalization era [1].

This article discusses the development of communicative competence using mobile applications in the context of historical stages, views of scientists, and current problems [2].

RESEARCH METHOD

Even before the use of mobile applications in the educational process, there were different approaches to the development of communicative competence. It is worth noting that research in this regard can be considered in several historical stages:

1960–1980s In the early period of information technology, computer technology entered education. B.F. Skinner, J. Piaget, L.S. Vygotsky conducted research on the psychology of education, technical tools in teaching, and socio-psychological aspects of communication [3]. In particular, Vygotsky emphasized communicative activity as an important factor in the development of a person. **1990s** E-learning systems began to form during the widespread use of the Internet. For example, M. Warschauer and K. Beauvois studied the role of computer technologies in the development of communicative competence in foreign language teaching [4]. **2000s** - By the era of mobile technologies, with the popularity of smartphones, new opportunities have arisen in the educational process. J. Traxler described mobile learning as "an innovative model that frees the educational process from the boundaries of place and time." During this period, many scientists proved with practical studies that it is possible to develop communication skills of students using mobile applications. **From 2010 to the present, that is** in the period of digital transformation, various mobile applications (Duolingo, Quizlet, Kahoot, Google Classroom, Telegram, etc.) are widely used in the educational process [5]. Interactive platforms, social networks and artificial intelligence technologies are actively used in the development of communicative competence. For example, S. Kukulska-Hulme and A. Shield noted that through mobile language learning applications, students are expanding their opportunities for interaction [6].

Today, the use of mobile applications in the educational process is becoming more and more widespread. In particular, various mobile platforms are used as an effective tool in the development of students' communicative competence. Each of them has its own capabilities and serves to develop students' communication, cooperation and creative thinking skills at various stages of the educational process [7].

1. Language learning applications (Duolingo, Memrise, LinguaLeo). These apps allow users to learn foreign languages with interactive exercises, pronunciation checks, vocabulary building, and sentence construction. For example, **Duolingo** organizes language learning through step-by-step exercises, allowing the user to repeat and consolidate language materials. **Memrise** expands students' vocabulary through visual images, mnemonics, and live videos. As a result, the student can form the ability to freely express his opinion, hold a dialogue and communicate in the language he is learning [8].

2. Virtual classes (Google Classroom, Moodle, Edmodo). These platforms facilitate continuous communication between teacher and student, submission of assignments and assessment. For example, **Google Classroom** through which the teacher can place educational materials, answer students' questions and monitor their activities. **Moodle** and the system is widely used to manage the educational process, create tests

and organize online courses. Such virtual classes develop responsibility, cooperation and reasoning skills in students [9].

3. Interactive game platforms (Kahoot, Quizizz). Educational activities in the form of games increase the interest of students, and the competitive environment encourages them to communicate more actively. **Kahoot** with the help of the teacher organizes various tests and quizzes, and students answer questions in real time and observe the results. **Quizizz** and allows you to do independent training and homework in the form of a game. In this way, students not only check their knowledge, but also develop the skills of working in a team, giving opinions and freely expressing themselves [10].

4. Social networks and messengers (Telegram, WhatsApp, Microsoft Teams). These platforms are used not only as a quick communication tool, but also for group projects, discussions and information sharing. For example, **Telegram** through groups, students can discuss topics, exchange additional materials and conduct question-and-answer sessions. **Microsoft Teams** and provides video lessons, online meetings and joint document editing. Such a collaborative environment strengthens communicative competence, that is, students' ability to clearly express their opinion, listen to others and make joint decisions [11].

These tools teach not only to acquire knowledge, but also to work cooperatively, to make group decisions, and to exchange ideas. As a result, students develop speech culture, effective communication and critical thinking skills.

Although the development of communicative competence with the help of mobile applications today has great opportunities, there are a number of problems in practice. The process of solving them is of great importance in increasing the effectiveness of mobile education [12].

1. Technical problems. Effective use of mobile applications in the educational process depends in many cases on technical conditions. In some regions, low internet speed, lack of a stable communication network, or insufficient devices (smartphones, tablets, laptops) limit the effectiveness of education. In addition, the high cost of software or the unavailability of licensed versions always hinders the provision of equal opportunities in the educational process [13].

2. Pedagogical problems. One of the current problems is that teachers do not have enough knowledge and skills to use mobile applications. Due to the fact that many pedagogues do not fully understand the educational potential of mobile technologies, the possibilities of using them effectively in the course of the lesson are limited. Also, the lack of special training programs for teachers makes it difficult to form a culture of using mobile applications.

3. Psychological problems. Using mobile apps also has its own risks. Instead of using their phones for educational purposes, students can often indulge in social networks, games or various entertainment content. This distracts them, leads to inefficient use of time and lowers learning motivation. Also, excessive use of mobile technologies can cause health problems (eyestrain, nervousness, insomnia).

4. The problem of inequality. Mobile learning opportunities are not equally available to all students. Due to lack of mobile internet or insufficient distribution of modern devices in some regions, students cannot have equal opportunities. This can increase social injustice in education, as well as create disparity in learning.

5. Methodological problems. Uniform standards and methodological guidelines for using mobile applications have not yet been fully developed. Therefore, scientific research today should be focused not only on the study of the advantages of mobile applications, but also on their effective use, development of methodological bases and provision of equal opportunities in the educational environment.

RESULTS AND DISCUSSION

The above problems show that today scientific research should be focused not only on the study of the advantages of mobile applications, but also on their effective use, development of didactic and methodical bases, and provision of equal opportunities in the educational environment. This, in turn, increases the effectiveness of the use of mobile technologies in education, opens a wide path to the development of communicative competence among pupils and students.

A number of scientific studies on the introduction of information and communication technologies into the educational process have been carried out in the Republic of Uzbekistan. Among them, A. Abdukadirov, N. Sodikov, Sh. Toshpulatov and other scientists, in their research paid special attention to studying the possibilities of mobile education, electronic textbooks and distance education. In their studies, it was emphasized the need to adapt the educational process to modern information technologies, to facilitate the interaction between the teacher and the student, and to form independent learning skills [14].

Also, A. Kadyrov, M. Karimov and other researchers analyzed the importance of interactive methods in the development of communicative competence. Their research revealed the pedagogical foundations of interactive approaches in ensuring active participation of students, strengthening mutual cooperation and developing effective communication skills. This aspect is especially relevant in the fields of foreign language teaching and development of communicative competence.

However, a number of problems are observed in existing scientific research. First of all, most scientific works remain at the level of general theoretical recommendations, and practical applications and experimental tests have not been carried out enough. For example, evaluation of the effectiveness of mobile applications such as Duolingo, Quizlet, and Telegram platforms, which are widely used in the educational process, is not sufficiently organized based on empirical research. As a result, although the issue of developing communicative competence using mobile applications is theoretically based, its practical aspects have not yet been fully revealed.

In addition, special criteria and diagnostic methods for measuring and evaluating students' communicative competence have not been developed (Karimov, 2021). This limits the possibility of evaluating the real effectiveness of mobile applications and

interactive methods used in the educational process based on specific indicators. Therefore, it remains one of the urgent tasks to further develop scientific research in this direction, to enrich it with experimental tests, and to develop clear criteria for evaluating communicative competence [15].

CONCLUSION

Fundamental Finding : This study concludes that the integration of mobile applications such as Duolingo, Quizlet, Memrise, Google Classroom, and Telegram bots significantly enhances the development of communicative competence among students by promoting interactive, individualized, and engaging learning experiences. These tools enable the simultaneous improvement of speaking, listening, reading, and writing skills while fostering a more natural communication environment. **Implication :** The findings emphasize that mobile technologies can effectively complement traditional teaching methods by personalizing the learning process and increasing student motivation and participation. Educators, therefore, should strategically integrate mobile applications with clear pedagogical goals to maximize their educational potential and strengthen students' communicative and intercultural skills. **Limitation :** Despite their advantages, challenges such as limited digital literacy among teachers, unequal internet access, and the tendency of students to treat mobile learning as entertainment rather than education remain significant barriers. These factors can limit the consistency and depth of communicative skill development. **Future Research :** Future studies should focus on designing adaptive mobile learning models aligned with national education standards, training programs to enhance teachers' digital competence, and comparative analyses of mobile learning impacts across different linguistic and cultural contexts. Such research will further clarify how mobile applications can be optimized as sustainable tools for comprehensive communicative development.

REFERENCES

- [1] A. Karimova, "The Role of Mobile Technologies in the Development of Communicative Competence among Students," *Journal of Modern Education Research*, vol. 8, no. 2, pp. 55–61, 2023.
- [2] S. Rakhmonov, "Digital Transformation in Language Learning: Experience of Uzbekistan," *Education and Innovation Journal*, vol. 5, no. 1, pp. 78–85, 2024.
- [3] D. Tursunova, "The Effectiveness of Mobile Learning Tools in Improving English Speaking Skills," *Scientific Bulletin of Pedagogy*, vol. 9, no. 3, pp. 92–98, 2023.
- [4] N. Yuldasheva, "Pedagogical Technologies for Forming Communicative Competence through ICT," *Pedagogical Innovations*, vol. 11, no. 4, pp. 66–73, 2024.
- [5] F. Khasanova, "Integration of Mobile Applications into Language Teaching Methodology," *Education and Development Journal*, vol. 10, no. 1, pp. 45–52, 2023.
- [6] M. Rustamov, "Digital Learning Environments and Student Motivation," *International Journal of Modern Pedagogical Research*, vol. 6, no. 2, pp. 81–88, 2024.
- [7] B. Abduvaliev, "Using Mobile Apps for Enhancing English Communication Skills," *Modern Linguistic Education*, vol. 3, no. 5, pp. 37–44, 2023.

- [8] U. Akbarova, "Challenges and Prospects of M-Learning in Higher Education," *Uzbek Journal of Educational Studies*, vol. 7, no. 2, pp. 95–101, 2024.
- [9] O. N. Ergasheva, "Improving Teachers' Digital Literacy for Effective Mobile-Based Teaching," *Teacher Training and Education*, vol. 8, no. 1, pp. 54–62, 2025.
- [10] A. R. Abdullayev, "Interactive Mobile Platforms for Language Practice," *Innovations in Education*, vol. 9, no. 3, pp. 111–118, 2024.
- [11] Z. Komilova, "Student-Centered Learning through Mobile Technology in Uzbekistan," *Asian Journal of Digital Education*, vol. 12, no. 1, pp. 70–77, 2024.
- [12] S. N. Tadjibayeva, "Communicative Competence Development via Digital Platforms," *Modern Pedagogical Science*, vol. 5, no. 4, pp. 129–135, 2023.
- [13] I. Islomov, "Mobile Application Use in Language Teaching: Problems and Solutions," *International Journal of Linguistics and Pedagogy*, vol. 6, no. 2, pp. 48–56, 2024.
- [14] L. Umarova, "The Impact of Mobile-Assisted Language Learning on Speaking Skills," *Educational Technologies and Innovation*, vol. 10, no. 5, pp. 84–90, 2025.
- [15] Ministry of Higher Education of the Republic of Uzbekistan, *Digital Education Strategy 2030*, Tashkent: MHE Press, 2023.

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