

**THE WAYS, METHODS, AND POSSIBILITIES OF USING  
MOBILE DEVICES AND APPLICATIONS IN EDUCATION**

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**Annotation.** *Introduction of modern educational tools in public schools enhances the quality of education and increases students' interest in subjects. This article highlights the forms, methods, opportunities, advantages, and effectiveness of using mobile devices and applications in public schools.*

**Key words:** *mobile device, mobile application, mobile technologies, ways of using mobile devices and applications, methods, opportunities.*

The strategy for activities in Uzbekistan in the years 2017-2021 on the development of Uzbekistan in five priority areas includes the reshaping of the continuous education system based on the strategy, updating its content in accordance with social demands, and the necessity to utilize modern educational technologies. In addressing these issues, the development of modern teaching tools and technologies is becoming essential for organizing and managing the learning process effectively and efficiently, as well as for the effective use of them in the field of education.

Computer technologies that enable the creation, editing, storage, processing, and presentation of information play a crucial role in enhancing competitiveness and improving efficiency in all areas of society.

In today's world, utilizing e-learning environments in general education schools requires positive changes in organizing the learning process. This leads to the creation of opportunities for implementing mobile learning by using e-learning and mobile devices to develop students' interest and enthusiasm in acquiring knowledge, skills, and competencies in general education subjects.

Mobile applications are a significant part of mobile learning, installed on mobile devices (phones, communicators, smartphones, etc.) on a specific platform (Android, iOS, BlackBerry, HP webOS, Symbian OS, Samsung, and Bada from Windows Mobile). They connect to a mobile server and manage the user interface.

Mobile applications are considered a crucial component of mobile technologies and are considered one of the main tools to enhance the quality of the learning process in general education schools. Through mobile applications, students can access learning resources, connect with others, and create learning content both inside and outside the classroom.

Mobile technologies encompass smartphones, tablets, and other devices that, according to their features, can be not only more compact than desktop computers but sometimes even more effective, making it more convenient for students. Utilizing mobile applications can expand the presentation of educational materials and enable their use in all stages of learning and other types of activities. Mobile applications and services can increase students' interest and enthusiasm in learning a subject.

The advantages of using mobile technologies in general education schools include:

- Specialized computer labs are not required for conducting educational activities using networked educational resources.
- Mobility and flexibility in using mobile devices anytime and anywhere.
- Not being dependent on having access to a computer or the Internet via Wi-Fi for independent work.
- Immediate access to necessary information.
- Ability to establish relationships between students and teachers in solving educational problems.
- Relative economic efficiency compared to desktop computers and laptops.
- Enhancement of student motivation.

In general education schools, the use of mobile devices and applications is implemented in the following ways:

1. Providing access to educational websites with educational content - used as a form of distance learning. The first method is to use mobile devices as a gateway to the global network. Through this, it is possible to provide access to specialized websites containing electronic courses, tests, practical tasks, and additional learning materials (diagrams, photos, audio, and video files). Additionally, it creates opportunities to provide students with information materials at all stages of the educational system, monitor the learning process, and assist in solving emerging issues.

2. The second method of using mobile devices for educational purposes is through utilizing mobile applications that have the capability to open and view files from office software such as Office Word, PowerPoint, Excel, and others. Video and audio files can also be accessed through player applications that have been available on every device in recent years. This feature is particularly valuable for those who want to learn foreign languages, as a wide variety of audio courses and audiobooks in various formats and lengths are available.

3. Mobile devices and their functionality allow for organizing teaching by using specialized electronic textbooks, educational courses, and specialized files containing educational materials – directly tailored for mobile device platforms. Another method of using mobile devices in the learning process is for students to access and complete specialized electronic textbooks and courses designed for viewing and completion on mobile applications. Students are recommended to download mobile applications to their phones that contain specific tests for certain subjects, as well as necessary information for successful completion.

The use of mobile technologies simplifies the creation of such electronic resources and their implementation from a software perspective. The ability to place diagrams, drawings, and formulas makes writing electronic educational courses for mobile devices universal and suitable for any topic being studied. Developing electronic textbooks and test applications for mobile devices is considered a more promising direction for the future.

In order to effectively utilize mobile learning opportunities for students in general education schools, it is necessary to prepare them technically and psychologically. For this purpose, it is required to develop the psychological-pedagogical foundations of mobile learning strategies, forms, and methods for integrating them into the educational process.

The main task of organizing and implementing the pedagogical process of learning through mobile applications is to incorporate the following elements of interrelations among participants:

- Defining and explaining the purpose and objectives of the activity, and their acceptance by the pedagogical community; implementing the selected methods, means, and forms of organizing the pedagogical process of learning through mobile applications;
- Ensuring the mutual influence of all subjects;
- Creating favorable conditions, including ensuring safety and ecological cleanliness;
- Implementing various measures to stimulate student activity.

In this process, pedagogical cooperation, supervision, organization of the process, and quick adjustments to the content of educational subjects are carried out. In addition to this, the presence of feedback in the pedagogical process and its implementation helps to solve educational and pedagogical issues.

From the above mentioned ideas, it can be concluded that the use of mobile devices and applications in general education schools creates the following basic opportunities:

- Personalizing teaching, allowing for consideration of individual characteristics of students and helping to identify their strengths and weaknesses in learning;
- Visualizing activities, enabling active use of interactive and simulation tools;
- Providing opportunities for learning for persons with disabilities;

- Not requiring personal computer and purchasing educational materials, thus contributing to economic development;
- Through modern wireless technologies (WAP, GPRS, EDGE, Bluetooth, Wi-Fi), providing easy distribution of educational materials among users;
- Presenting information in multimedia format helps to better perceive and understand this material, increasing interest in the learning process.

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