# Possibilities of using Mobile Technologies in the Educational Process

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Abstract: The revolutionary changes taking place in our rapidly developing society today require the widespread use of technical means that ensure adequate use of information in the educational process. It is relevant today to use mobile gadgets in the learning process in order to solve all kinds of pedagogical problems. The reasons for using mobile devices in education are many. For example, at any time, regardless of location, you can engage in self-education; a game form that arouses more interest than classical organizational forms of learning; the ability to accurately control attendance; the possibility of conducting a "five-minute" knowledge control, the possibility of taking independent and homework in electronic form, which forces all students to prepare for each lesson; the ability to collect statistical data, analyze the dynamics of mastering educational material from different positions: each student, the whole group, academic subject, teacher; more efficient exchange of important information between participants in the educational process and others. This article talks about the possibilities of mobile applications in education and the thoughts of great scientists about technical means in the educational process.

*Keywords:* technical means, mobile technologies, competence, motivation, tablet, smartphone, mobile devices, demonstration.

### Introduction.

The rapid introduction of technical means into the educational process, the issue of effective organization of the educational process through their rational use are considered pressing issues today. To organize a modern lesson, one of the main tasks facing the teaching staff is to accept the changes taking place in the field of education, approach them positively and, based on this, be able to actively use the necessary technical means for the lesson process.

Eastern thinkers have always paid attention to the field of education and expressed their views on it. In particular, we see that Al-Khwarizmi also used methods of educational experience, questions and answers, the formation of qualifications and skills, and methods of testing knowledge. The advantage of Farobi's explanation of the meaning of knowledge compared to the method of memorizing knowledge is that for the success of teaching, the teacher must be educated, and Abu Rayhan Beruni put forward ideas that have not lost their relevance in the field of education in those days. (X-XI centuries), and in our days the importance of not boring the student, not teaching the same thing in the learning process, coherence, consistency, interesting reasoning and demonstration of topics has been emphasized. (Yuldashev I.A. Modern technical means and technologies in education. Monograph. - T.: «Science and technology», 2015. -172-p.)

The use of technical means in the educational process began to be actively used mainly in the first half of the 20th century. Technical teaching aids were first used in the educational process in the United States as an audiovisual teaching aid programmed in the 1930s. Since the 1940s, the widespread use of this tool has begun in US schools. In the mid-1950s, elements of a programmable educational idea and a technological approach appeared. These are audiovisual

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means designed specifically for the content of the educational process, feedback means – electronic classrooms, teaching machines, language labs, simulators, etc. In the 1970s, the use of technical means was theoretically reworked and strengthened. This is how new learning tools appeared (G.M.Kojaspirova, K.K. Petrov).In, Technical means of training and methods of their use: Textbook for students. higher. ped. studies. institutions - M: «Academy»,2001. –C. 256.)

Technical teaching aids mean a complex of didactic support and technical devices for processing and displaying information for complete and convenient optimization of the educational process. In particular, the issue of using mobile devices as technical means of the educational process is one of the most pressing at the moment.

Possibilities of using mobile technologies in the educational process:

- Improving the quality of education;
- ➤ Increase the effect of students' assimilation of educational material;
- > Introduction and support of integration of information and communication technologies in education;
- Formative assessment of the educational process (analysis of one's own mistakes, self-assessment) and the introduction of differentiated educational technologies;
- ➤ Increase in the rate of passing standardized tests;
- ➤ Having the opportunity to continue education for the rest of your life;
- ➤ Establishment of the connection "educational institution family-educational institution" and its development.

The great thinker and teacher K. D. Ushinsky noted that this factor, which causes the development of students' attention, helps to achieve academic success, is very important. Ushinsky described the use of technical means in teaching for the development of psychological characteristics as follows (Ushinsky K.D. Selected pedagogical works. In 2 volumes. - Md.: «Pedagogy», 1974. Volume 1. -C. 339- 341.):

- 1. Mindfulness. Light, color images that are used in educational technology help to attract students' attention to a specific object.
- 2. *Stability*. With the help of technology, the interest that arises in students allows them to remain focused on the task at hand.
- 3. Degree of attentiveness. The amount of information that students learn during a lesson is increased through the use of network technology, which is based on its dynamics and diversity of distribution.
- 4. Distribution of attention. It is usually considered a difficult process for students to focus on multiple objects at the same time and fully embrace them, but the use of mobile technology makes this process easier. In this case, the use of one's mobile devices provides the teacher with great opportunities, that is, the teacher, using technical and software tools, gives students the necessary concepts in the allotted time, while efficiently organizing the lesson through the use of modern pedagogical technologies.
- 5. Data transfer function. During the lesson, with the help of network technologies and information technology, the ability to transfer attention from one object to another develops.

The textbook of the Russian scientist-teacher G.M. Kodzhaspirova "Technical means of teaching and methods of their use" analyzes the psychological, pedagogical, methodological and organizational aspects of the use of educational programs and their analysis, and these aspects are the entire organization of processes, the effectiveness of teaching, requirements for the organization educational process. educational programs, student motivation (Kodzhaspirova G.M., Petrov K.V., Technical teaching aids and methods of their use. - M.: «Academy», 2001. – C. 256.)

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Currently, modern and compact mobile technologies are gaining their place in the educational process. When organizing student learning using mobile technologies, educational materials are first studied, regardless of the specific time and place. (Fine M.B. Mobile learning in the educational process: foreign experience. // "Modern scientific research and innovations", 2015. No. 1. Part 3 [Electronic resource]. URL: http://web.ilm-fan.ru/issuyes/2015/01/43006 (accessed September 29, 2017). Education based on mobile technologies is widely used in the educational systems of many countries, for example, in the USA, Canada, European countries, it can be noted that mobile educational technologies have been introduced in teaching various subjects through the use of a single platform that combines mobile educational resources and their development methods (Titova, S. V. Mobile learning today: strategies and prospects. // Bulletin of Moscow University: Ser. 19: Linguistics and intercultural communication. - 2012, N1. – pp. 9-23.) Today, many companies producing computers, communications and computing equipment are developing modern computers with compact sensors, including tablets, smartphones and mobile devices. According to statistics from developed countries, mobile devices in most cases are smartphones or tablets, which are the organizer of an intelligent system. The touch screen is used to control the tablet without using a physical keyboard and mouse, this is done using your fingers. Touchscreen input keeps up with keyboard typing speed. In the 70s of the 20th century, Alan Key, an American computer scientist, proposed the idea of a "book-sized computer." (Son I.S. Mobile learning in the study of foreign languages [Text]. // Theory and practice of education in the modern world: materials of the III International Scientific Conference (St. Petersburg, May 2013). - St. Petersburg.: "Renome", 2013. - pp. 164-167. URL https://moluch.ru/conf/ped/Archive/70/3844/(access date: 12/07/2017).

With the advent of handheld computers by the 90s, proposals were made to explore mobile tools and use mobile education for students. The research work of V.A. Kuklev on obtaining knowledge from the network based on mobile technologies was studied in detail (Kuklev V.A. Formation of a mobile learning system in open distance education. Abstract of thesis. Candidate of Pedagogical Sciences. - Ulyanovsk: 2010. -P. 46.) In the research work of M.A. Grigorieva, the teaching of computer science in mobile computer systems is analyzed (Grigorieva M.A. Activity-based approach to teaching computer science to schoolchildren using mobile computer systems. Abstract of thesis. Candidate of Pedagogical Sciences . - M., 2011. - P. 24.). The projects of Saville-Smith, J. Stead and J. Colley studied the organization of teaching mathematics and linguistics based on mobile systems. (Attewell J, Savill-Smith, S. Mobile Technologies and Learning. - London: Learning and Skills Development Agency, 2004. - pp. 47-53.)

Educational technologies based on mobile computer systems: phones, tablets and smartphones are widely used in Australia, Great Britain, Italy, Canada, Cyprus, Mexico, New Zealand, Poland, the United States, Turkey, Chile, Sweden and other countries (Bannister B. M-learning, a new reality at the moment. // "Mobile Systems", 2006, No. 2. -P. 3-12)

Mike Sharpalz, a professor at the British Open University, analyzes mobile education in his research work. In a 2002 lecture in Birmingham, Mike Sharpalz identifies 3 fundamentals of mobile education: Construction, Conversation and Control, with the help of which the teacher and student receive information to make it easier for them to understand each other and control the learning process on the part of the teacher.

## Presentation of the main material.

UNESCO has analyzed a number of benefits of mobile learning: allow expansion of educational opportunities and conditions.

Efficiency of feedback and evaluation of learning outcomes.

Mobile technologies speed up the learning process and allow students and teachers to track their progress faster. Previously, students had to wait a long time for grades, reviews and recommendations on their knowledge. And now, in practice, it is clear that evaluation responses

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are issued instantly using interactive functions of mobile devices. As a result of automation of the process of collecting, analyzing and distributing evaluation documents, the use of mobile technologies increases the productivity of teachers. Mobile applications that quickly assess students' knowledge include Pliskers, Sosrative.

Training at a convenient time and place.

Mobile devices have the ability to organize the learning process regardless of the place and time. Mobilization has 2 grounds: on the one hand, if a teacher is physically unable to be present at an educational institution, the teacher has the opportunity to implement educational programs at his disposal. On the other hand, modern technologies provide an opportunity for education, especially with the help of a cloud storage system. In this case, the student will be able to replace his personal mobile device, but will have access to all his educational materials based on a cloud storage system. In addition, it can use various technical devices to perform tasks.

Effective use of the time allocated for the training session in the classroom.

UNESCO research shows that teachers can use their time more effectively with the help of mobile devices. If students learn new material at home, the opportunity to analyze, discuss and jointly master this material is created in the classroom.

Support for students with disabilities.

The advantages of mobile technologies, such as text scaling, voice transcription, text-to-speech and geolocation, help to increase the effectiveness of teaching students with disabilities.

Cambridge The Afrika (Cambridge to Africa) has developed a special program for hearing-impaired students in Uganda. Students get acquainted with the curriculum and establish cooperation with teachers using a mobile device and an innovative SMS system.

Improving the quality of management and communication.

Due to the fact that with the help of mobile devices, messages can be delivered faster, more reliably, better and more economically than with the help of conventional telecom operators, students and teachers often use mobile devices to exchange information. Teachers will be able to track students' reactions to assignments, and parents will be able to monitor their child's progress. Accordingly, in order to organize mobile education in educational institutions, it is necessary to have access to all information resources of the institution through web browsers, web clients, special mobile applications 365 days a year, 7 days a week, 24 hours a day, as well as to provide secure access to the Internet and information resources on the territory of the educational institution.

Always before the lessons you need to think about which application to choose for training and in which part of the training to use it. In the process of preparing for the lesson, it should be remembered that it is not advisable to use a mobile application during the entire lesson. Therefore, it is acceptable to choose one such application and use it in part of the lesson.

It is important to pay attention to the following situations:

- 1. Application features.
- 2. Consideration of permission to install the application on different mobile devices.
- 3. Availability of free access.
- 4. The date the app was last updated.
- 5. Consideration of negative reviews and comments made to the application.
- 6. Testing the application on a personal mobile device.

Mobile applications can be used in any kind of training:

Mastering a new topic-an application consisting of educational material (electronic textbooks);

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- ➤ Independent education-Content creation applications;
- Research activities -applications for virtual laboratories;
- Introspection or control-testing of applications.

It is also necessary to note separately the attitude of students to mobile education. As a result of the application of mobile devices and applications to the educational process:

- Teaches basic knowledge of AT;
- > Stimulates curiosity;
- ➤ Helps to find out information about local and global events;
- > Creates new ways to interact with other people;
- ➤ Teaches you to be responsible;
- > Develops creativity;
- > Increases motivation to learn;
- > Teaches you how to solve problems;
- Teaches to unite with other students around team activities (problems).

#### Conclusions.

The faster information technologies are introduced into all spheres of human activity, the more it indicates that they are developing at such a speed, as well as the need to constantly improve knowledge and move forward in accordance with the period that is becoming an urgent issue every day. Social and cultural changes in an informed society imply the need for the formation of new competencies aimed at the use of information technologies in the educational process, with a strong emphasis on the use of mobile technologies in teaching.

Smart mobile devices used all over the world provide students with greater freedom, which means that students can move forward at their own pace and manage their personal interests, while increasing learning motivation.

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